

499

CAACTGGTAC TTGCCTGACT CAGGGTCACG AATGCTCCCA TTTGCCAAGA AAGCGCCACA	15240
GAGATAGGCA CGACCTGCTT CCTCATCCGA TAAAATCGCC TCATCAATAC CTGTTTCCAG	15300
GCCAAAGAAA GAGTCTGCCA AGTGCAAATC ACTTAACAAA TCCTGCACCT TTTCATCTGT	15360
AAAAACGGTA TAGACGCGAT TCTTGCGAAG ATTGCTCCGT TGGTGGTGAC GAATTTTCTAGA	15420
TTTGATTTC A TAGAGATGGA GAAAGGACTC ATAGAGGTGA CGGGCCAGTT TGGCATTTTC	15480
TGTCACAAC T GACAAAGTCA AGCCCGAAGT CGAGAGACCG ATGCTACCAG ACATTTTGAT	15540
AATGGCAGAT AATTTCATGCC AGCTCAGATG GTGTTGGCCC AGGATTCTCT CTTTACTG	15600
TACTGTGAAA CTCATTTTTT CACCTGTATA ATGCGCATCA ACTCGTCCAC AATCAAATCT	15660
CCATCGTGGA AGGCACCGCC ATTTTCCAGA CGAAGGAAGT TAGATGAAAT CACGCGCGAA	15720
ACTTGCTTAC AAAGACCTAC AAAATCGTGT TCCACTTGCA CTAAGTATTC ATCAAAACGG	15780
TTGGAATTC A TGTATTCCTG AGGCACTTTT TCAATATTC A CCAAGACAGT GTCGATAAAA	15840
GGGCGACCAA GGTGACGATG CAAGACTTCC ACGTGGTCGC TATCTGTAAA GTGTTCCGTC	15900
TCCCCACGTT GGGTCATGAT ATTGCAGACA TAGGCAATTT CTGCCTTGGT TTCCAAAAGA	15960
GCCCCCCCAA TTTCCTTAAT CACGATATTG GGCAAAATAG AGGTAAAGAG GGAACCTGGC	16020
CCTAGACAA TCATGTCACT TTCAAGGATG GTCTGCACTA CTCGACGGCT GGCCAGAGGC	16080
GTATCATCGT TTAGGGCATT GGTACATAG ACATTGTCAA TTATGCCTCG ATGGTCTACA	16140
ATATGACTCT CTCCAGCCAC TTCTGTCCCA TCCTGAAAGA CTGCATGAAG GGTCAAAGGA	16200
TGGTCACTGG AAGGATAAAT TTTCCCTGTT GTATGGAAAA ATTTGCTCAA TAACTGCATG	16260
GCATTATAGG TTGAACCTG CATTCTGAC AAGCCAGCAA TGATGAGATT TCCCAATGGA	16320
TGGCCAGCAA AGGCTCCGGC ATCCTCAGAG AACCATACT GAAAGACCTT CTCATAAAAC	16380
TTAGGCATAT CCGACATGGC CACAAGGACA TTACGAAGAT CACCTGGCGG TGTCAACTGT	16440
TGCATATTTT TTCGGAGTTC ACCTGAAGAA CCACCATCAT CTGCCACCGT CACGATAGCT	16500
GCGATTTCCA CATCTTTTTC CCGCAGACTT TTTAGAATGA CGGGACTTCC AGTCCCTCCA	16560
CCAATCACCG TTATCTTTGG TTTTCTCATG AACGGTTTAC CGTTTCCTTT CTGCGGTCTT	16620
TGTCGCGATG CCCTTCATTA ACAGACCAAT TCTTGGATAA GTCCTGCGCC AAGCGTTTAG	16680
CAAATGCCAC ACTACGGTGT TGTCCACCCG TACATCCCAT GGCAATGGTC AAAACGGACT	16740
TACCTTCCTT TTGGTAACTT GGCAGAATCG GCTCAATCAA GGCCAATAAA TGTTGATAAA	16800
AGTCTTCTGA CTCAGGATGG TTCATGACAT AATCATAAAC AGGTTCATCC ACACCCGTTT	16860
GGTTTCTCAG TTCTGGTAAA TAATAGGGAT TTGGCAAGAA ACGGACATCA AAGACCAAGT	16920

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CCGCATCAAT	CGGGATTCCA	TACTTAAATC	CGAAAGACAT	GACTTCGATA	CGGAAAGACT	16980
GGGCTTGTTT	TTGGTCTGAA	AACTGCTCTG	CAAGGGTTTT	GCGCAgCTCA	CGTGGAGTGA	17040
GTTCAgTCGT	ATCCACCACA	TTTTGGCTCA	TATTTTTCAA	AGGTGCCAAG	AGTTCACGTT	17100
CCAAC TTGAT	TCCATCTAAA	ATACGACCGT	CTGCTGCTAG	TGGGTGACTC	CGTCTGGTTT	17160
CCTTGTAACG	AGCGACCAAT	TCCTTATCAG	CCGCATCCAA	AAAGAGGATT	TTGAAATCCA	17220
AACCATCTTG	ATTTTCCAAC	TCATCCAAAA	CAGCTTGAAT	CTCTGAAAAG	AAAGAACGGC	17280
TACGCATATC	CACTACCAAG	GCCAACTTAG	GATTGTCTTC	CTTAATTTCa	ACCAGCTGCA	17340
AAAAC TTAGG	CAAGAGAGCT	GGCGGCATAT	TATCAATGGT	GAAATAACCT	AGATCCTCGA	17400
AGGACTGAAT	GGCTACAGTT	TTCCCTGCGC	CACTCATCCC	TGTCACAATC	ACCAAGTGAA	17460
GTTGTTTCTT	TGTCATCTTT	TTCTCCTTAT	ATCAAAAGAA	GTTTGGCAAC	ACCAAAC TTC	17520
AACTAGCTTA	TCCAATCTCT	GCGATGACTT	CAATTTGAC	TTTTACATCA	CGAGGAAGAC	17580
GAGCTACCTC	CACAGCTGAA	CGAGCTGGGA	ATTCTCTTTT	GAAGGCCGTT	TGGTAAACCT	17640
CATTAAAAGG	AACAAAGTCG	TTCATATCGC	TCAAGAAGCA	AGTTGTTTTG	ACAACATGGT	17700
CAAAGTCTGT	TCCTGCTTCT	GCCAAAATAG	CACCGATGTT	TTTCAAGACT	TGCTCTGTCT	17760
GTTCTTG GAT	ATTCTCTCCT	ACAATTTCCC	CAGTTTCAGG	GGATAGGGGA	ACTTGACCGC	17820
TAGCAAACAA	AAGTTGCCA	ACGATTTTTT	CTTGAACATA	GGGTCCGATA	GCCTTTGGGG	17880
CCTTATCTGT	ATGAATTGTT	TTTGCCATTT	TCTTTTCCTC	ACAATTTTTT	TAAGATTGCA	17940
TCCCAGCCT	CATCCATCCC	TGCCTTACTG	ACAGATGAAA	AGAGGATGAA	ATCGTCACTC	18000
GGGTCAAAGT	TTAATTTCTT	TTTGATTGCT	GATTCATGCT	TGTTCCATTT	ACCACGAGGA	18060
ATCTTG TCCG	CCTTGGTCGC	CACAATGATG	ACTGGAATCT	CATAATACTT	GAGAAATTCG	18120
TACATCTGCA	CATCATCTGC	TGACGGGTCA	TGACGAAGGT	CAACTAGACT	GACAACCGCA	18180
CGGAGATTTT	CCCGAGTCGT	TAAGTACTCC	TCAATCATGC	ACCCCACTT	TTCACGTTCC	18240
TTTTTAGAAA	CACGAGCATA	GCCATAACCA	GGCACATCCA	CAAAGCGCAT	CTTGTCATCA	18300
ATGTTAAAAA	AGTTCAGGAG	CTGGGTTTTA	CCAGGTTTTT	CTGATGTACG	GGCGAGATTC	18360
TTACGGTTCA	ACATAGTGTT	GATAAAGCTG	GATTTACCAA	CATTTGAACG	CCCTGCTAGG	18420
GCAATCTCTG	GCAGTTCATC	CTGCGGATAG	TGGGACTTAT	TAGCTGCACT	GAGCAAGATT	18480
TCAGCATTGT	GTGTATTAAG	TTCCATAGTC	ACCTCTAGGC	TGTTTCTAGG	ATCGGTTTAT	18540
CCGTTCATC	TACAGTTTCT	TTAGTGATGC	GAACCAATTT	CACATTTTCC	TGACTCGGCA	18600
CCTCAAACAT	GACATCTAGC	ATGGTTTCTT	CGATGATGGA	GCGAAGTCCA	CGCGCCCTG	18660
TCTTCCGTTT	GATTGCTTTA	TTAGCAATCT	CTTGAAGGGC	TTGTCGTCA	AATTCCAAC T	18720

501

CAACATCATC ATAAGAAAGC AAGGTTTGGT ATTGTTTCAC CAAGGCATTT CTTGGCTCTT	18780
TCAAGATGCG AACCAAGTCA TCAACGGTCA ATTGCTCAAG AGCCGCAAAA ACAGGCAAGC	18840
GTCCAATCAA CTCAGGGATA ATACCAAATT TTTGAATGTC TTCAGCGATG ATTTCTTGCA	18900
TGTATGAGCT GTTTTCGTCA ATCGCCTTAT TATTTTGACC AAATCCGATG ACTTTTTCAC	18960
CCAGACGTTG TTTGACAATT TCTTCAATAC CATCAAAAGC ACCACCCACG ATGAAGAGGA	19020
TATTTTTTGT ATCCACTTGA ATCATCTCTT GTTGTGGATG TTTGCGTCCA CCTTGAGGCG	19080
GTACGCTAGC AACAGTTCCC TCAATAATCT TGAGAAGGGC TTGTTGCACC CCTTCACCAG	19140
AAACATCACG TGTGATAGAC ACATTCTCAC TCTTCTTGGC AATCTTGTCA ATTTTCATCCA	19200
CATAGATAAT GCCACGCTCT GCACGTTCGA TGTTAAAGTC AGCAACCTGC AAGAGTTTGA	19260
GGAGGATATT TTCCACATCC TCACCCACAT AACCAGCCTC CGTCAGAGCT GTCGCATCCG	19320
CAATAGCAAA AGGTACATTC AAGCTCTTAG CCAAGGTCTG GGCAAGGAAA GTTTTCCCTG	19380
AACCAGTTGG GCCAATCATC AAAATGTTTG ACTTCTGCAA ATCCACATCT TCTGACTCTT	19440
CGCGTGTATC GTGGAAATG ATGCGTTTGT AGTGGTTATA AACCGCCACT GCCAAGGCAC	19500
GCTTGGCACG ATCTTGACCA ATTACATAGT GGTTCAGAT ATGGAGGAGT TCAATTGGTT	19560
TTGGCACCTC AGACAAGTCT GCCAAGACTT CCTCAACCAA TTCTTCTCGA ATGATTTCTT	19620
GAGCTAACTC CACGCATTCA TTACAAATAA AAGCATTGTT GCCAGCAATT ATTTTTTGTA	19680
CTTCTTCTTG GTTTTTGCCA CAAAATGAGC AATAAACCAT CATATCATTT TTTCTATTTG	19740
TAGACATGAT TTCCTTCCAT TCTATACTGT CATTCTATCT AAAATAAGGT CATGTAAAAA	19800
GCATGAATAC TATTGACCAG ATTGGTAAAG GCATTTAACC AAAGGAGGAT AGAAAGCCCG	19860
TAACGCTTTT TACGAAAAGC TTGTGCTCCT GCCAGAAAAGC AGATGAAACA CAGAAAAGCC	19920
GTGAATAGAC CAAATAAACT CCGTTCCATT AGACTTCCTT TCTCTTGCGG TATTGGATGG	19980
TAAAATCATA AGGATTCTTC TCATCTTTGG CGTAAAATTT GCTTGAAACT GTCTCAAAAA	20040
GAGACAAGTC AAGTTCTTCA GGGAAATAGG TATCTCCTTC CACCCGAGCA TGAATGTGAG	20100
TGACAATCAC TTCATCAAGG TAAGGTTCAA AAGCCTGAAA AATTTGCTTC CCACCGATAA	20160
TGTAGAGATT CTTTCTTGA GCCTGATACC AGTCAAGAAC AGACTGGACG TCCTGAAAAG	20220
TAGCAACCCC ATCTATCTTT TCTTCCGGAT TACGCGTCAA AATCAAGGTT TCCCGTTTGG	20280
GAAGCAAGCG ACGCCCCATC CCATCAAAGG TCACACGCCC CATCAAGATA GCATGATTCA	20340
GAGTTGTTTC TTAAAGTGC TGCAATCTG CTGGCAAATG CCAAGGCAGA CGATTTTCCT	20400
TACCAATCAC ACCCTCTTCA TCCTGGGCCC AAATAGCTAC GATTTTCTTA GTCATGCTTC	20460

502

CATCCTTTTC ACTGATAGTA CTATTTTATC AAAAAACTCA AAAAAAGACT GGTTCGGAAT	20520
AGCTTACAAA ATAGAAAAAA TCTGTAAGAA ATTTCTTACA GATTTATCTA TGTTTCCTTA	20580
TTTCTTACAA ACCAGGTGCT TGTCCAAGTT CGGCTGCAAG CATCCAAATT GTTTTATCTG	20640
TTTCAGTTTT AGCGCCTGCA AAGATACCGT TTGTCACATC GTCACCTTCT TCATCAGTGA	20700
CATCCAAACC TTTTGGGAAA AGTTCTGACA AGTAACGGTA GATAACAAGA ACACGTTCCTA	20760
AGCTTCTTTC AACATTACGG TATTCACCAG CTTCTTCTTC GATTTCACTA TTTTGAAGGA	20820
ACTCTGTCAA TGTAAGAAAT GGGCTTCCAC CGAGTGTAAT CAAGCGTTCA CTGATTCAT	20880
CCAATTGACC GTCAAGAGCT TCCATGTACT CATCCATTTT TGGATGCCAT ACAAGGAAAC	20940
CACGACCATG CATATACCAG TGCACCTGGT GCAAAGCAAC GTGAGCTACA TACAAATCAG	21000
CAACAGCTTG GTTCAAGACT TCCTTTGTTT TTGCCAATGC	21040

(2) INFORMATION FOR SEQ ID NO: 56:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2387 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

ATTTCTTAATA CGATTAAAAG GCTTATTACT AAAAGAAAAT TTCAGTTAGA TGAATAAAC	60
TTGCTCGTCA AATCCCGATT TAACGAGATG TTTGGGGAAA ATAAATATT TGAAAGCATT	120
GATAACTTAT TTGATATTAT AGATGGTGAT AGGGGCAAAA ATTATCCTAA ATCAGATGAG	180
TTGTTTAGTG AGGAGTACTG TTTATTTTTA AATACAAAGA ATGTTACTAA AAACGGATTT	240
TCATTTCGATA CAAAGCAATT TATCACTAAA ACAAGGATA AATTACTTCG AAAAGGCAAA	300
CTTGAGCGTT ATGATATAGT CTTGACAACA AGAGGTACTG TTGGAAATGT AGCGTACTAC	360
GATGAATTAA TAAAATATAA ACATTTACGT ATAAATTCAG GTATGGTAAT ATTACGTCCC	420
AAGACACCAA ATCTAAATCA GAAATTTATT ATCCATGTTT TAAGGAATAA TAATTATAGT	480
CGAGTGATAT CAGGAAGTGC TCAGCCTCAG TTACCAATTA CAAAATTAAA AAAAATACTT	540
CTCCCCCTCC CCCCCTAGC CCTCCAAAAT GAGTTCGCAG ACTTTGTAGT CCAGGTCGAC	600
AAATCACAAT TGGCAATCCA AAAATCTCTG GAAGAACTTG AAACCTTGAA GAAATCTCTG	660
ATGCAGGAGT ATTTTGGCTG ATATTCTGCC ATTGTAATTA CGGTAATGAT TTGTTATAAT	720
ACTTCAAAGG AGGAAATCAG ATGGTAGTAA AAACAAGAAA ACAAGGAAAT TCAATCACCA	780
TTACGATTCC AAGTGAATTT AATATTCCAA GTGGTGTTAA ATACGAAGCG AAATTGTTAC	840

503

CAAGTGGTGA GATTATCTTT ACTCCTGAAG AATTGGGGCA GCAGGTTTCT TATGTATCTG	900
ATGATGCCCTT TGA CT TAAAT TTAGATAAAA TATTTGACGA ATACGACGAT GTTTTCAAAG	960
CTTTGGTGGA AAAATGACAA TCTATTTGAC AGAAAAGCAA ATTGAAAAAA TAAATGCTTT	1020
AGCAATTCAA CGGTATTCTC CAAATGAGAA AATTCAAACA GTTAGTCCTT CTGCCTTAAA	1080
TATGATTGTG AACTTACCAG AACAAATTTGT CTTTGGGAAG CCTCTTTATC CAACAATTTT	1140
TGATAAAGCA ACGATACTAT TTGTCCAATT GATAAAGAAG CATGTTTTTG CTAATGCTAA	1200
TAAAAGAACT GCTTCTTCG TTTTGGTCAA ATTTTACAA TTAAACGGCT ATCGTTTTTC	1260
TGTAACGGTA GAAGAAGCAG TAAAAATGTG TGTAACCATC GCAGTAGAAG CTTTAACTGA	1320
TGAAAAATG ACAAGCTACT CCAAATGGAT TTCTGAACAT TCTGTTAGAG AAAAGGTCAA	1380
AAAGTAACCT AGTATGCTGG ATTTGAATGA GCACAAGAAA ATAAATGAAC AGACAATATT	1440
AGAATTCTGT AATGCAGAAA CTGATATTGT CTC'TTTTAT TGATGAATAA GAAAGTGAGA	1500
AATATGGAA TCAAAAGTTA CAATTATCAT GCAAGAAATG TTACCTCTTT TAAATAATGA	1560
ACAATTACTA GCGTTGAGAG AGAGTTTAGA ACATCATCTA GTAGACGGAA AAAAGCAGCA	1620
GAAGTATTCG AATAATAACC TGTGCAACT ATTTATTACC GCCAAGCAGG TAGAGGGCTG	1680
TAGCTCAAAA ACAATTCGTT ATTATCAGAG GACGATTGAA AACTTGTTTA ATGCTATTAA	1740
AGAGTCTGTG ACACAACTCA CAACAGATGA TTTAAGGAGT TATTTAGCAA ATTACCAGTC	1800
TGAAAAGGAT TGTAGTAAGG CAAATTTAGA CAATATTAGG CGTATATTGT CTTCTTTTTT	1860
TGCTTGGCTT GAGCAAGAGG ATATATCATT AAAATTCCCA TTCGACGGAT ACAGAAAATT	1920
AAGACTGAGC AAAATGTGAA GGAACTTAT ACTGATGAAC ATTTGGAAAT TATGCGTGAT	1980
AACTGTGAAA ATTTGAGAGA TTTGGCAATA ATAGACCTAC TAGCATCGAC AGGTATGCGT	2040
GTAGGGGAGC TTGTACAGTT GAATCGTTCA GATATTGATT TTGAAAACAG AGAGTGTGTT	2100
GTCTTTGGTA AAGGAAAGAA GGAGAGACCA GTATATTTTG ACGCTCGTAC GAAAATTCAT	2160
TTAAGAAATT ATCTTAACGA CAGAAAAGAT AGTCACCCTG CTC'TTTTGT AACGCTAGTT	2220
GGAAAAGTCC AGAGGCTTGG AATTGCTGGT GTAGAGATTC GCTTAAGAAA GTTAGGAGAC	2280
AAACTCGGCA TACAAAAGGT TCACCCACAT AAGTTCAGAA GAACTTTAGC GACTAAGGCA	2340
ATTGATAAAG GTATGCCTAT CGAACAAGTC CAAAACTGC TAGGTCA	2387

(2) INFORMATION FOR SEQ ID NO: 57:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10669 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double

504

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

ATATTAAAGC GACTTTCTGT GCGCTAGGGA AAAATGTTCC TGGGAATGAG GACTTGGTGA	60
AGAGGATAAA ATCTGAAGGT CATGTTGTTG GAAACCATAG CTGGAGCCAT CCGATTCTCT	120
CGCAACTCTC TCTTGATGAA GCTAAAAAGC AGATTACTGA TACTGAGGAT GTGCTAACTA	180
AAGTGCTGGG TTCTAGTTCT AAACATCATGC GTCCACCTTA TGGTGCTATT ACAGATGATA	240
TTCGCAATAG CTTGGATTG AGCTTTATCA TGTGGGATGT GGATAGTCTG GACTGGAAGA	300
GTAAAAATGA AGCATCTATT TTGACAGAAA TTCAGTATCA AGTAGCTAAT GGCTCTATCG	360
TTTTTGATGCA TGATATTCAC AGTCCGACAG TCAATGCCTT GCCAAGGGTC ATTGAGTATT	420
TGAAAAATCA AGGTTATACC TTTGTGACCA TACCAGAGAT GCTCAATACT CGCCTAAAAG	480
CTCATGAGCT GTACTATAGT CGTGATGAAT AAGCAAGAAA AAATAGGCTT GTTAGATATT	540
TGACAGACTT ATTTTTTACA GAATATAGTA CTACTTAAAA AATGTTTAT GCTATAATTG	600
ATGAATAAAA TAGAAGGAGA AGCATATGAA TACCTATCAA TTAAATAATG GAGTAGAAAT	660
TCCAGTATTG GGATTTGGA CTTTTAAGGC TAAGGATGGA GAAGAAGCCT ATCGTGCAGT	720
GTTAGAAGCC TTGAAGGCTG GTTATCGTCA TATTGATACG GCGGCGATTT ATCAGAATGA	780
AGAAAGTGTT GGTCAAGCAA TCAAAGATAG CGGAGTTCCA CGTGAAGAAA TGTTCTGAAC	840
TACCAAGCTT TGAATAGTC AGCAAACCTA TGAGCAAACCT CGTCAAGCTT TGGAAAAATC	900
TATAGAAAAA CTGGGCTTGG ATTATTTGGA TTTGTATTTG ATTCATTGGC CGAACCCAAA	960
ACCGCTCAGA GAAATGACG CATGGAAAAC TCGCAATGCG GAAGTTTGA GAGCGATGGA	1020
AGACCTCTAT CAAGAAGGGA AAATCCGTGC TATCGGCGTT AGCAATTTTC TTCCCATCA	1080
TTTGATGCC TTGCTTGAAA CTGCAACTAT CGTTCCTGCG GTCAATCAAG TTCGCTTGGC	1140
GCCAGGTGTG TATCAAGATC AAGTCGTAGC TTAGTGTGCT GAAAAGGGAA TTTTATTGGA	1200
AGCTTGGGGG CCTTTTGGAC AAGGAGAACT GTTTGATAGC AAGCAAGTCC AAGAAATAGC	1260
AGCAAATCAC GGAAAATCGG TTGCTCAGAT AGCCTTGCC TGGAGCTTGG CAGAAGGATT	1320
TTTACCACCT CCAAAATCTG TCACAACCTC TCGTATTCAA GCTAATCTTG ATTGCTTTGG	1380
AATTGAACTG AGTCATGAGG AGAGAGAAAC CTTAAAAACG ATTGCTGTTC AATCGGGTGC	1440
TCCACGAGTT GATGATGTGG ATTTCTAGAA AATCATAAAA AGAATTGTAC ATTATTCTAA	1500
TTTTTGATAT AATAGTCAGC AGGAAAGAAA GTCTTATGGC GTTCTTCAAG CGAGCTTGGG	1560
ATAGTGGGAG CCAAGTAGGG CAAAATAAAG GGCTGGCGCT TTCTGTAGTA TTTTCAAAA	1620

505

CAATGAAGTA ATAAATTAGG GTGGAACCGC GTTCTGACG CCCCTAGGTT AAATCAACCT	1680
AGGATTGTCA GATGTGGTTC TTTTGCTTAT TCAGTCTATT GTGTGAAAGA AAGGAGAGCC	1740
GTGGACAACC TTTATCTTGT AAAAGACGAT AGTCAACTAG CTACATTTCG TGATTTTGTA	1800
GTAAGAAATA CTGAAAAGTT GAAAGATTAT CAATCTTTTT TAAAGAATGA ACTTGCAAGTC	1860
TGTGATTTAC CGCAAGCTGT TATTTGGTCA GATTTTAATG CTGCTACACA GATTATTAGG	1920
GAAAGTGCTG TTCCAACCTA TACAAATAAT AGACGAGTGG TTATGACGCC TGATTTAGCT	1980
GTTTGGAAG AATTGTATTT GTATCAGTTG ATGGACTACG AGTGTCTGA GCAAACCTCA	2040
GCAATAGAAA GTCACATCA TTCTTTATCT GAAAATTTCC TCTTACAGAT TGTAGGACAT	2100
GAGTTAGCTC ATTGGTCGGA CATTTTTTAG ATGATTTTGA TGGTTATGAC TCTTATATCT	2160
GGTTCGAAGA GGGGATGGTT GAATATATTA GTCGCAAGTA TTTCTTGACA GAAGAGGAAT	2220
TTCAAGCGGA AAAAATTTGT AATCAATCTC TCGTAGAACT TTTTCAGAAG AAGTATAGTT	2280
GGCATTCAAT GAATGATTTT GGTCTCTCGA CTTATGATAA GAACTATGCA AGTATTTTTT	2340
ATGAATACTG GCGCAGCTTT TTGACAGTAG ATAAGTTGGT AGAAAATTTA GGTAGTGATC	2400
AAGCGGTCTT AGATTCTTAT CATTTATGGG CAAATACAGA AAAAATTTT CCCTTGTTAG	2460
ATTGGTTTGT TCAGCAGAAA TTAATTGAAA AAGAAATATA AAAACTAAAG GAGTAAACAA	2520
TGTCTAAGAA ATTAACATTT CACTGCATCA GTGGCAGAGA CCTCCTTACA GTCGGGCTGC	2580
TCCACGCTCA GCACTAGAGT GCCTGAGCTA GACGCAGTAC TAACTCGTCT TGCCTCGTAT	2640
GATCGACGAG GCAGACTCGT GTCGCAAGTA ATTATTTTTT ATTAAGGAGT ATTCAATGTC	2700
TAAGAAATTA ACATTTCACT GCGTCAGTGG CAGAAACCTC CTTACAGTCG GACTGCCCTA	2760
CGCTCAGCAC TAGAGTGCCT GAGCTAGACG CAGTACTAAC TCGTCTTGCC TCGTATAATC	2820
GACGAGGCAG ACTCGTGTG CAAGAAATTA TTTTTTATTA AGGAGTATTC AATGTCTAAG	2880
AAATTAACAT TTCAAGAAAT TATTTTGAAT TTGCAACAAT TTTGGAATGA CCAAGATTGT	2940
ATGCTTATGC AGGCTTATGA TAATGAAAAA GGTGCGGGGA CAATGAGTCC TTACACTTTC	3000
CTTCGTGCTA TCGGACCTGA GCCATGGAAT GCAGCTTATG TAGAGCCATC ACGTCGTCCT	3060
GCTGACGGTC GTTATGGGGA AAACCCTAAC CGTCTCTACC AACACCACCA ATTCCAGGTG	3120
GTCATGAAGC CTTCTCCATC AAATATCCAA GAACTTTACC TTGAGTCTTT GGAAAAATG	3180
GGAATCAATC CTTTGGAGCA CGATATTCGT TTTGTTGAGG ACAAATGGGA AAACCCATCA	3240
ACTGGTTCAG CTGGTCTTGG TTGGGAAGTT TGGCTTGACG GAATGGAAAT CACTCAGTTC	3300
ACTTATTTCC AACAAGTCGG TGGATTGGCA ACTGGCCCTG TGAATGCGGA AGTTACCTAT	3360

506						
GGTTTGGAGC	GCTTGGCTTC	TTACATTCAA	GAAGTAGACT	CTGTCTATGA	TATCGAGTGG	3420
GCTGATGGTG	TAAAATACGG	AGAAATCTTT	ATCCAGCCTG	AGTATGAGCA	CTCAAAATAT	3480
TCATTTGAAA	TTTCGGACCA	AGAAATGTTG	CTTGAAAAC T	TTGATAAGTT	TGAAAAAGAA	3540
GCTGGTCGTG	CATTAGAAGA	AGGCTTGGTA	CACCCTGCCT	ATGACTATGT	TCTCAAATGT	3600
TCACATACCT	TTAATCTGCT	TGACGCGCGT	GGTGCCGTAT	CTGTAACAGA	GCGTGCAGGC	3660
TATATCGCTC	GTATCCGTAA	CTTGGCCCCG	GTCGTAGCCA	AAACCTTTGT	CGCAGAACGC	3720
AAACGCCTAG	GCTACCCACT	TTTGGATGAA	GAAACAAGAG	CTAAACTCCT	AGCAGAAGAC	3780
GCAGAATAAA	GAGAGTGACA	AATTACGAAA	ATGGGCGAAC	AGAGTGAGCC	CTGAGCCAGT	3840
TGCCGCAGTG	ATGAAGGTAT	CCTTAGTGAA	ACTAAGGATA	CTAGGCAAAA	TTGGAGACTT	3900
TTGGCTCCAA	TTTTAGCAAT	GAAACAACGA	AGTTGGTTGC	TTGCGTGCCA	ATCACATAAG	3960
GCAAACTGGA	AAATAAAAAG	ATACTTTTCG	GAGAAAAAAC	ATGACAAAAA	ACTTATTAGT	4020
AGAACTCGGT	CTGAAGAAT	TACCAGCCTA	TGTTGTTACG	CCAAGTGAAA	AACAACCTAGG	4080
CGAAAAATG	GCAGCCTTCC	TCAAGGGAAA	ACGCCTGTCT	TTTGAAGCCA	TTCAAACCTT	4140
CTCAACACCA	CGTCGTTTGG	CTGTTCTGTG	AACTGGTCTT	GCAGACAAAC	AGTCTGATTT	4200
AACAGAAGAT	TTCAAGGGTC	CAGCAAAGAA	AATTGCCTTA	GATAGTGATG	GAAACTTCAC	4260
CAAAGCAGCT	CAAGGATTTG	TCCGTGGGAA	AGGTTTGACT	GTTGAAGATA	TCGAATTCCG	4320
TGAAATCAAG	GGTGAAGAAT	ATGTCTATGT	CACTAAGGAA	GAAATTGGTC	AAGCAGTTGA	4380
AGCCATTGTT	CCAGGCATTG	TGGATGTCTT	GAAGTCACTG	ACTTTCCTTG	TCAGCATGCA	4440
CTGGGCGGGA	AATAGCTTTG	AATACATCCG	CCCTGTTTAC	ACTTTAACTG	TTCTCTTGGA	4500
TGAGCAAGAG	TTTGACTTGG	ATTTCTCTGA	TATCAAGGGA	AGTCGTGTGA	GTCGTGGCCA	4560
TCGTTTTTTG	GGACAAGAAA	CCAAGATTCA	GTCAGCATTG	AGCTATGAAG	AAGACCTTCG	4620
TAAGCAGTTT	GTAATCGCAG	ATCCATGTGA	ACGTGAGCAA	ATGATTGTTG	ACCAAATCAA	4680
GGAAATTGAG	GCAAAACATG	GTGTACGTAT	CGAAATTGAT	GCGGATTGTC	TGAATGAAGT	4740
CTTGAATTTG	GTTGAATACC	CAACTGCCTT	CATGGGAAGT	TTTGATGCTA	AATACCTTGA	4800
AGTTCCAGAA	GAAGTCTTGG	TGACTTCTAT	GAAGGAACAC	CAGCGTTACT	TTGTTGTTCTG	4860
TGATCAAGAT	GGAAAACTCT	TGCCAAACTT	CATTTCTGTT	CGTAACGGAA	ACGCAGAGCG	4920
TTTGAAAAAT	GTCATCAAAG	GAAATGAAAA	AGTCTTGGTA	GCCCCTTGG	AAGACGGAGA	4980
ATTCTTCTGG	CGTGAAGACC	AAAAATTGGT	GATTTTCAGAT	CTTGTTGAAA	AATTAAACAA	5040
TGTCACCTTC	CATGAGAAGA	TTGGTTCTCT	TCGTGAACAC	ATGATTCTGA	CGGGTCAAAT	5100
CACTGTACTT	TTGGCAGAAA	AAGCTAGTTT	GTCAGTGGAT	GAAACAGTTG	ACCTTGCTCG	5160

507

TGCAGCAGCC	ATTTACAAGT	TTGACTTGTT	GACAGGTATG	GTTGGTGAAT	TTGACGAACT	5220
CCAAGGAATT	ATGGGTGAAA	AATACACCCT	TCTTGCTGGT	GAAACTCCAG	CGGTGGCAGC	5280
TGCTATTTCG	GAACACTACA	TGCCTACATC	AGCTGAAGGA	GAACTTCCAG	AGAGCAAGGT	5340
CGGCGCAGTT	CTAGCCATTG	CAGACAAATT	GGATACGATT	TTGAGTTTCT	TCTCAGTAGG	5400
ATTGATTCCA	TCAGGTTCTA	ATGACCCTTA	TGCCCTTCGT	CGTGCAACTC	AAGGTGTGGT	5460
TCGTATCTTG	GATGCCTTTG	GTTGGCACAT	TGCTATGGAT	GAGCTGATTG	ATAGCCTTTA	5520
TGCATTGAAA	TTTGACAGTT	TGACTTATGA	AAATAAAGCA	GAGGTTATGG	ACTTTATCAA	5580
GGCTCGTGTT	GATAAGATGA	TGGGCTCTAC	TCCAAAAGAT	ATCAAGGAAG	CAGTTCTTGC	5640
AGGTTCAAAC	TTTGTTGTGG	CAGATATGTT	GGAAGCAGCA	AGTGCTCTCG	TAGAAGTAAG	5700
CAAGGAAGAA	GATTTTAAAC	CATCTGTTGA	ATCACTTTCT	CGTGCCTTTA	ACCTGGCCGA	5760
GAAGGCAGAA	GGGGTTGCTA	CGGTTGATTC	AGCACTATTT	GAGAATGACC	AAGAAAAAGC	5820
TTTGGCAGAA	GCAGTAGAAA	CACTCATTTT	ATCAGGACCT	GCAAGTCAGC	AATTGAAACA	5880
ACTTTTTCG	CTTAGCCCAG	TCATTGATGC	TTTCTTTGAA	AATACTATGG	TAATGGCTGA	5940
AGATCAGGCT	GTCCGTCAAA	ATCGTTTGGC	AATCTTGTCA	CAACTAACCA	AGAAAGCAGC	6000
TAAGTTTGCT	TGTTTTAACC	AAATTAACAC	TAAATAAAAT	TTGATAAACG	GACTTTATCT	6060
TATTACAAAG	GAGAAGAAAT	GGATCCGAAA	AAAATGCTC	GTATCAATGA	GCTTGCTAAA	6120
AAGAAAAAAA	CAGAAGGCTT	AACACCAGAA	GAAAAAGTGG	AACAAGCCAA	ACTACGTGAG	6180
GAGTACATCG	AAGGTTATCG	CCGCGCTGTT	CGTCACCACA	TTGAAGGAAT	CAAAATTGTG	6240
GACGAAGAAG	GAAACGATGT	TACACCAGAA	AACTACGCC	AAGTACAACG	TGAAAAAGGA	6300
TTACATGGCC	GTAGTCTTGA	TGATCCAAAT	TCATAATAAT	ACTCTTCGAA	AATCAAATTC	6360
AAACCACGTC	AGCTTCACCT	TGCCGTACTT	AAGTACAGCC	TGCGGCTAGC	TTCTTAGTTT	6420
GCTCTTTGAT	TTTCATTGAG	TATATGTATT	CTTCTTTTTC	ACAAAGATAG	ATGAAACGAT	6480
AACAAAGAGA	CTAGCAGTTT	GTGTTTGCTA	GTCTTTTTC	GCTAAAAAAG	GAACCATAAT	6540
GGTTCCTAAA	AACATCATTT	AGTAACTTGC	ACCGGCTGTA	GCGTCTGCGT	CACCACCGTG	6600
GCCTCCAGCA	TCCCCTGAAT	CAGAAGCGCC	AGAAGTAGCA	TCGGCGTCTC	CATGACCTCC	6660
GGCAGCAGGA	GCAAAATGGTC	CGCTACCACC	CACCAAACGT	TGACCAGTCT	CTTTTAGGTA	6720
CCAGTCAAGC	CATGGTTGGA	AGTTAAAGAC	GATTTTCATTG	ATACCAGCGT	ATGATCCATC	6780
AGGATAGTAC	ATTGCTTGGT	AGTTGTGAGT	GTTGATAACA	CCTGCAGGAG	AACCTGGAAC	6840
GATCGTACGG	ACGTATTCTT	GGTTCCGTT	GCGAAGTGTT	CCGATAACCC	ACTCTACGTT	6900

508

CTTCATACGT	GCTGGTGGAA	GAGAACCATG	AACAGTCGAC	ATACGGCTAC	CTGATTGAGG	6960
TGGTACACGT	TTAGCGAACA	TAGTGTCTGG	ATCTTGGTGA	GCGTTGTTGT	AGTAGAGGAA	7020
TTGGTTGTTG	TCGTCAGCGT	ATGTCAATTC	AAATGGCATA	GCTTTCAAGA	ACATATCAAT	7080
TTGGTTAACT	GTTAGGATAC	CGTGGTCCAA	TTTGACATAG	GTATCACCAG	AAACAGCACC	7140
AGTGAATGCT	GCAACTTTTT	CTACCCATTC	TGGATCGTCA	GGGTCAACTT	CTGTGATGGT	7200
TGTAGCGATT	GGTTTTCAC	AATCCAAGTC	TTCTGATTCG	ATTGGTTTTG	GTTTTTTCAA	7260
TTTCGAAACG	ACTCCTACGT	ATTTAACAAA	GTTATCTAAG	CAAGTTTCAA	GGAATTTAAC	7320
AGTGCCTTCG	TTGGTGATAT	TTCCGTTGTT	ATCAAAAGCT	TCCTTAGCTT	TACCAAGAAG	7380
GAATTCGTTA	CCTGGAAGCG	TGTAGGCATT	AACACCTGGA	GCATCAAGGA	TTTTACGAAG	7440
GTGAACCTGA	GCACGTGATG	TTCCTTGGTC	ATAGTATGAT	GCACCCACAA	TCATAACAGG	7500
CTTGTTTTCA	AATGGATGAA	CTTCGTATGA	AAGCCATTCA	AGTACAGATT	TGAGTGAAGC	7560
TGAGATAGTG	TGGTTATGCT	CAGGAGTAGC	AATGATAACA	CCATCTGCAC	GAGTAATTTT	7620
GTTATATAAA	TAACGTAATT	GGAACTTTC	ATCCCATTTT	TCATCTTGGT	TAAACATTGG	7680
AACTTCGTCA	ATTTCAAGAA	CTTCTAATTC	AAATTGAGT	TTGAAGTAGC	GACGGATAAA	7740
TTCCAAGAGC	TTACGGTTAT	ATGATTGATC	GTAGTTTGAT	CCAACAAGTC	CAACAAATTT	7800
CATCTCTTTT	GGTCTCCTAT	CTTACAAATT	TTCCCAGTCA	AAGTCTTCAG	CATCTTTGCG	7860
AAGTAATTCT	TGTGCATTAC	GTAATTTTTC	TGTGATTTTT	ACAAAGATAC	GGAAGTCATC	7920
AAAGATGGCA	TCCAATTTCT	TGATAACATC	AAGGTCAACC	AAGTCGCCAC	TTGGGTTAAA	7980
TGCTTGAAGA	GAGTGTGAGA	GCAAGAATTC	ATCTGGAAGA	ACATTTGCCT	TGATTTCAGG	8040
AGCATTC AAG	ATTTGACGAA	GTTGCAATTG	GGCACGAGAT	GAACCAAGCG	TACCGTAAGA	8100
AGCACCTGTA	ATCATGATTG	GTTTGTTC A	AAGTGGGTAA	ATACCATAAG	ACAACCAAGC	8160
AAGAGCGCTC	ATCAAAACAG	CTGGAATAGA	GTGATCATAC	TCAGGAGTAC	CGATAATAAC	8220
GCCATCTGCC	TCTTCGATTT	TAGCAGCAAT	TTCCAATATT	TCAGCAGGTA	CTTGCTTGTC	8280
AGCTGGTTTG	TTGAAGACAG	GAATGGCCTT	GATTTC AACA	AGTTCAATTT	CAGCTTTGTC	8340
AGTAAAGTGT	TTTTGCATGT	ATTGAAGCAA	TTGACGGTTT	GTAGAACGTT	TTGAATTTGT	8400
TCCAACAATA	GCAATAAGTT	TTAACATGAG	ATTCCTTTC	TCTTTT TACA	TAATACAATT	8460
TTAAAATTCC	ATTGAAACAG	TTGTCTCTAT	AGAGTAGGAA	TTCTGGAAGA	ACAGCTTAGG	8520
TGGCCTTCTT	TATCGATGAG	GATGACTTCG	ATGCCCTCCA	AACTTTCGAC	TTGCCAGAGG	8580
ATAGAAGCAG	GTCTTTCTCC	AAAGAGTCGA	GTCGTCCAGA	TTTCGCCATC	GA CTGATTTA	8640
TCAGAGATGA	TTGTTAGACT	CGCTAGTTCC	GTTTCAACAG	GATATCCTGT	TTGACTGTCA	8700

509

AAAATGTGAT	GGTAATCTTG	TCCATCGACG	GTCAGGTGAC	G TTCATAAAAT	GCCTGAAGTC	8760
ACGACAGATT	TATTGACAAC	AGGGATGGTC	ATTAAATGAT	TTCCCCTAGG	ATTGGCTGGG	8820
TCTTGAATCC	CGATTTGCCA	TGGGTATATCC	CCTCTTGCCT	GATTTTTTCC	AATGGTCAGG	8880
ATATTCCCTC	CCAGATTGAT	CAAGGCAGAA	GTCACCCCT	CTTCCCTAAG	AAATTGGGCA	8940
ACCTTATCCG	CACTGTATCC	TTTGGCTAAA	CAACCTAGAT	CGATCTTCAT	TCCTTTCTGT	9000
TTTAAAAACA	CAGTAGAAGT	AGAAGAATCT	AACTCGATAC	CATGAGGATT	GATTAGAGGC	9060
AGCACCGATT	CAATTTCTTG	AGGCTGGGCG	ACCTTGGCAT	CTGAAAAACC	GATACGCCAG	9120
GTTTGAATTA	AGGGACCAAT	GCTGATATTG	AGGTGGCTAG	AGAGCGCTAG	GCTATGCTCT	9180
AACCCAAGTG	AAATCAGCTC	AAACAGGTCT	GGATGAACCG	TGACGGGGGC	TATTCCTGCT	9240
TGATAATTGA	TTTCCATCAA	CTCAGATTCT	TGACTATTGG	CGTTGAAGCG	GTATTCAAGT	9300
TCTTTGAGCA	AGTCAAAGGA	TTTTTGGAGA	AAGATATCGG	CTTGCTCATC	CACTAATGAA	9360
ATAGTGATAG	TAGTCCCAT	TAGCCGTCA	GAATGTGAAC	GAAGAGTCAA	GCTACCAACT	9420
CCTTTCTCTT	ATAGAAAATA	AGTTGTAATA	TCAAATAATC	ATCTAAATG	AAGCCCTTAC	9480
ATTTCATTTT	CATGTTATTA	TAATACCATA	AAGTTAGAAT	TTTCACAAAC	AAAATTTGGA	9540
AAAAGTCAAG	AAATATGCTC	ATAAAATTCA	TCAGGCTTGA	AAACAGGATA	AATGGGGAAT	9600
TATTTTGTAT	AAAAAATGCT	GAAATAATAG	TACCCCTT	GTAAACGCTA	ACGGTAAATG	9660
GTATACTAGT	AAGGTAAATT	TAGAATGAAG	GCAGGAAATT	TTTATGAGTA	AAATCGTTGT	9720
AGTCGGTGCT	AACCACGCTG	GTACAGCATG	TATCAATACC	ATGTTGGATA	ATTTTGGAAA	9780
TGAGAACGAA	ATTGTTGTAT	TTGACCAAAA	CTCTAACATC	TCTTTCCTAG	GATGTGGAAT	9840
GGCTCTTTGG	ATTGGTGAAC	AAATTGACGG	TGCTGAAGGC	TTGTTCTATT	CTGATAAAGA	9900
AAAATTGGAA	GCTAAAGGTG	CTAAAGTTTA	CATGAACTCA	CCTGTTCTTT	CAATCGACTA	9960
TGATAACAAA	GTAGTTACAG	CGGAAGTTGA	AGGAAAAGAG	CACAAAGAAT	CATACGAAAT	10020
ATTGATTTTC	GCTACAGGCT	CTACACCAAT	CTTGCCACCA	ATCGAAGGTG	TTGAAATTGT	10080
TAAAGGAAAC	CGCGAATTTA	AAGCAACTCT	TGAAAACGTA	CAATTCGTGA	AATTGTACCA	10140
AAATGCTGAA	GAAGTTATCA	ATAAACTTTC	TGACAAGAGC	CAACACCTCG	ACCGTATCGC	10200
CGTTGTTGGT	GGTGGTTACA	TCGGTGTTGA	ACTTGCTGAA	GCCTTTGAAC	GTCTTGAAAA	10260
AGAAGTTGTC	CTTGTTGATA	TCGTTGATAC	TGTCTTGAAC	GGTTACTATG	ACAAAGACTT	10320
CACACAAATG	ATGGCGAAGA	ACTTGGAAGA	TCACAACATC	CGCTTGGCTC	TAGGTCAAAC	10380
TGTTAAAGCA	ATCGAAGGTG	ACGGTAAAGT	TGAACGCTTG	ATTACTGACA	AAGAAAGCTT	10440

510

TGACGTGGAT ATGGTTATCC TTGCAGTTGG TTTCCGTCCA AACACAGCCC TTGCAGGTGG	10500
TAAGATCGAA CTCTTCCGCA ACGGTGCCTT CCTTGTTAGAC AAGAAACAAG AAACATCTAT	10560
CCCAGACGTT TACGCTGTTG GTGACTGTGC GACTGTTTAT GACAATGCTC GTAAAGATAC	10620
AAGCTATATC GCTCTTGCTT CAAATGCTGT GCGCACTGGT AACGTTGGT	10669

## (2) INFORMATION FOR SEQ ID NO: 58:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7542 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

CGCGCTAATA GATACTTTAT GATAGAATAA AGAACAAGAT TGACAAGTAA GAGGAAACAT	60
TATGCAAAAT CAAACACTCA TGCAATACTT TGAATGGTAT CTGCCCCACG ACGGTCAACA	120
CTGGACGCGT CTGGCTGAAA ATGCTCCACA CCTAGCTCAT CTGGGGATCA GTCACGTCTG	180
GATGCCACCA GCCTTCAAGG CAACCAACGA AAAAGATGTC GGCTATGGGG TCTATGACTT	240
ATTTGACTTA GGAGAGTTCA ACCAAAAAGG GACTGTCCGC ACCAAGTATG GTTTCAAAGA	300
AGACTATCTT CAAGCCATTC AAGCCCTTAA AGCACAGGGA ATTCAACCTA TGGCCGATGT	360
AGTTCTCAAC CACAAGGCTG CTGCCGATCA CAGGAAGCC TTTCAAGTTA TCGAAGTTGA	420
TCCTGTAGAC CGTACAGTTG AACTTGGAGA ACCCTTCACC ATCAATGGCT GGAAGTATTT	480
TACCTTCGAT GGTCGCCAAG ATACCTATAA TGGCTTCCAC TGGCATTGGT ACCACTTCAC	540
CGGTACAGAC TACGATGCCA AACGCAGTAA ATCTGGGATT TATCTGATCC AAGGGGACAA	600
CAAGGCTGG GCCAACGAGG AATTGGTCGA TAACGAAAAC GGAAACTACG ACTACCTCAT	660
GTATGCCGAC CTAGACTTTA AACATCCTGA AGTCATCCAA AACATCTATG ACTGGGCTGA	720
TTGGTTCATG GAAACGACTG GTGTAGCTGG TTTCCGTTTG GATGCCGTTA AGCATATTGA	780
CTCTTTCTTT ATGCGCAACT TCATCCGCGA TATGAAGGAA AAATACGGTG ACGATTTCTA	840
TGTTTTTGGT GAATTTTGGA ACCCAGACAA GGAAGCCAAT CTGGACTATC TCGAAAAAAC	900
GGAAGAACAC TTTGACCTTG TCGATGTTTG TCTCCACCAG AATCTCTTTG AAGCCAGTCA	960
AGCTGGCGCA AACTATGACC TTCGTGGCAT TTTCACAGAT AGCCTGGTTG AACTCAAGCC	1020
TGACAAGGCT GTGACTTTTG TCGACAACCA CGATACCCAA CGAGGACAAG CCCTTGAGTC	1080
TACCGTTGAA GAATGGTTCA AGCCAGCAGC CTATGCCCTC ATTTTGTGTAC GCCAAGACGG	1140
CCTTCCATGT GTCTTTTACG GAGACTACTA TGGGATTTCA GGGCAGTATG CTCAAGAAGA	1200

511

TTTCAAAGAA ATCCTTGACC GCCTCCTAGC CATCCGAAAA GATTTGGCCT ATGGAGAACA	1260
AAATGACTAC TTTGACCATG CTAACGTAT CGGTTGGGTA CGTTCAGGTG CTGAAAATCA	1320
ATCCCCAATC GCAGTCCTTA TCTCAAATGA CCAAGAAAAC AGCAAGTCAA TGTTCGTCGG	1380
TCAAGAATGG ACTAATCAAA CCTTTGTAGA TTTACTTGGT AACCACCAAG GTCAAGTTAC	1440
AATTGATGAG GAAGGTTATG GACAATCCC TGTCTCAGCT AGATCCGTAA GTGTCTGGGC	1500
AGTCAATACC ATCTAATAGC TCATAATAAC CAAGCTAGGT CCAAGCGGAT TTGGCTTTTT	1560
TGTATTCACA AAAAGACCTA CCCAAATGGA TAGATCTTTA CTTGATTACA ATTTACCTGC	1620
TACTGCATCC AACAAATCTT GGATCTTAGG TTGGTTGCTT CCTCCTGCCA TGGCCATATC	1680
TGGTTTACCA CCACCACGTC CATCGATGAT TGGTGCTAAT TCTTTGACAA GGTTTCCTGC	1740
ATGAAGGTCT TTTGTCTTGC TTGCTACAAG GACATTGACT TTGTCAACGA TAGCGGCAAC	1800
TAGGACAAGA AGATCAGAGT AGTCTTTTTG TTTCCAGTTA TCTGCAAAAG TACGAAGGGC	1860
ACCGGCATCG GATACAGACA CTTGACTAGC AATGTAACGA TGACCGTTGA CTTCTTAAAC	1920
ATCTTTGAAG ATATCGCCTG CGGCTGCAGC TCGCGCTTTT TCTTTCAACT CAGCATTTTC	1980
TTTTTTGAAGT TGACGAAGTT GTTCTTGAAG TCCTTCTACC TTGTGAGGTA CTTCTTGAC	2040
TTGAGGTGCT TTCAAGGTTG CTGCGATAGC TTTAAGAGCA TCCTCTTGTT CACGATAGGC	2100
TTCAAAGGCT TCCTTACCAG TCACTGCCAA GATACGGCGA GTTCCTGAAC CGATTCCTTC	2160
TTCTTTGACA ATTTTGAAGA GACCAATCTC AGAAGTGTG TCAACATGAG TACCACCACA	2220
AAGTTCAATA GAGTAGTCAC CGATAGTCAC GACACGAAC TCCTTGCCGT ATTTCTCACC	2280
AAAGAGGGCC ATAGCTCCCA TTTCTTTAGC AGTGTCATA TCCGTTTCAA CTGTCTTCAC	2340
TTCAAGTGCT TCCCAAATTT TCTCGTTAAC TTGCTGTTCA ATCGCACGAA GTTCCTCAGC	2400
AGTTACTGCT TGGAAGTGGG TAAAGTCAAA GCGAAGGAAT TCAACTTCGT TAAGAGATCC	2460
TGCCTGTGTT GCGTGGTTTC CAAGGATATT GTGAAGGGCA GCGTGAAGCA AATGAGTCGC	2520
AGTGTGGTTT TTCATGACAC GGTGACGGCG ATTGCTATCA ATTGCCAAGG TATATTCTTG	2580
GTTCAAGGCA AGCGGTGCAA GGACTTCAAC TGTATGAAGG GCTTGACCAT TTGGGGCTTT	2640
CTGAACATTG GTCACAGTAG CCACAACCTT ACCTGACTCA TCCAAGATTT GTCCGTAGTC	2700
AGCTACCTGT CCACCCATTT CAGCATAAAA TGACGTTTCC GCAAAGATAA GAGAGGCAGT	2760
TCCTTCTGAA ACAGCTCCTA CTTCTGCATT GTCAGCAACG ATAGCTACCA ATTTAGAAGA	2820
CAATTGGCTA GCATTGTAGT TGAAGACACT TTCTACAGTG ATGTTTGTAA GAGTTTCATT	2880
TTGCATACCC ATTGAGCCAC CCTTGACAGC TGACGCACGC GCGCGTTCTT GCTGTCTTTT	2940

512

CATGGCTGCT	TCAAAACCTT	CACGGTCTAC	AGTCATACCA	GCTTCTTCAG	CGATTTCTTC	3000
AGTCAATTCA	ACTGGGAACC	CATAAGTATC	ATAGAGTTTG	AAGACATCTG	AACCAGCGAT	3060
AACAGATTGA	CCTTTTCTT	TCAAGTCTGC	TACAATGCCT	TGGGCAAAGT	GTGACCTGA	3120
GTGAAGGGTA	CGGGCAAATG	ATTCTTCTTC	GCTCTTAACG	ATTTTCTCAA	TAAAGTCACG	3180
TTTCTCAAGC	ACTTCTGGGT	AGTAGCTTTC	CATGATTTT	CCAACAGTTG	GAACCAATTT	3240
GTAAAGGAAA	GGCTCGTTGA	TACCCAATTT	TTGACCATGC	ATAGAAGCAC	GACGGAGAAG	3300
ACGACGAAGA	ACATAACCAC	GACCTTCATT	TCCTGGAAGG	GCACCATCAC	CGATAGCAAA	3360
TGAAAGAGAA	CGAATGTGGT	CTGCGATAAC	CTTGAAGCTC	ATGTTGTCGC	CATCTTGGTC	3420
ATAAACCTTA	CCAGACAATT	TCTCGACTTC	ACGATAATC	GGCATGAAGA	GGTCCGTTTC	3480
AAAGTTGGTC	TTAGCCCCTT	GGATAACGGC	CACCAAACGC	TCCAAACCAG	CGCCCGTATC	3540
AATGTTCTTA	TGTGGCAATT	CCTTGTATTC	GCTACGAGGA	ACAGCAGGGT	CTGCGTTAAA	3600
TTGTGACAAA	ACGATGTTCC	AGATTTCAAT	ATAACGGTCG	TTTTCAATAT	CTTCTGCAAG	3660
CAGGCGAAGA	CCGATATTTT	CTGGGTCAA	GGCTTCCCA	CGGTCAAAGA	AGATTTCTGT	3720
ATCTGGTCCA	GAAGGTCCCG	CACCGATTTC	CCAGAAGTTG	TCCTCAATTG	GAATCAAGTG	3780
ACTTGATCC	ACTCCACTT	CAATCCAGCG	GTTGTAAGAA	TCTTTATCGT	CTGGATAGTA	3840
GGTCATGTAA	AGTTTTTCAG	CAGGGAAATC	AAACCATTCA	GGGCTTGTC	AAAGCTCATA	3900
AGCCCAAGTG	ATAGCTTCGT	CACGGAAGTA	ATCCCCGATA	GAGAAGTTCC	CCAGCATTTC	3960
AAACATGGTA	TGGTGACGCG	CGGTCTTCCC	TACGTTTTTCG	ATGTCGTTGG	TACGGATAGC	4020
CTTTTGGGCA	TTGGTAATAC	GTGGATTTTC	AGGGATAATG	GTCCCGTCAA	AGTATTTCTT	4080
AAGGGTTGCT	ACCCAGAGT	TGATCCACAA	AAGAGTTGGG	TCATTTACAG	GAACCAAAC	4140
TACTGATGGT	TCTACTGAGT	GACCTTTGGT	CGCCAGAAA	TCAAGCCACA	TTTGGCGTAC	4200
TTGTGCACTA	GATAGTTGTT	TCATATTGTC	TCCTTATTCA	CTTGTTTAAT	GTGATTGGCT	4260
TTCCAGCATT	TCCACATAGT	CAATCGCGAC	ACAGAGGGAA	ATGACTAGGT	CTGCATAAGC	4320
GTCTTCAAGA	ACCGTTACGG	TATAGGTAGA	AGTCAGATGG	AAGAGTTCCT	TCTTAATTTT	4380
CGCAATCAAC	TGATCGCGAT	CATCCAGCAA	TTTGAAATTC	AAATCCCAGA	TATTGCCCTC	4440
GATACGAAGA	CCTAGATTAT	CAAACCTATA	CTTATCTCGC	CAGAAGGTCA	ACTTCTTACG	4500
AATGACAAAA	CTCGAGCCAT	CCCGAAGCTG	AATTTCAAAA	CGAGGAAGCA	AGGTCAAGAT	4560
TTCTTTACTA	ATCTCACTGA	CTTGTTCAAC	AGCCGCATCA	TAGATGGTAA	AGGTTTTAGG	4620
AATCTTAAAA	AATGATCCCT	CCACCTGATA	GGCAATTTCT	CCCCTGTCAT	CCTTGATAGC	4680
GAAGCGTTCG	CCTCCAAGAC	GAAACTTTTG	TTTGACAAGA	AATGTTTTCA	TCAACACCTC	4740

513

CAAAAATCAA	AAGACAAGCT	CATATCACGA	AGGGCGAAAA	ACCGCGGTAC	CACCTTCATT	4800
CAATGAAC TT	GTCATTCTCT	TGTTCTTATG	CAATTGTATG	ATTGAGTAGC	ATGACTTCCT	4860
AGCTTAGATG	GCTCGCAGCA	CCGCCATTTC	TCTGGACTAA	GACAAGTGAA	AATCAATTCT	4920
CAACTTTCTT	ATTATAACGT	TTTTTTAAGC	TTGCGTCAAC	TGGAAATGAT	CTCCGTTGAA	4980
TTAGACCAAT	TCCCTACATC	TCTGATTACT	TTTTCAGGAT	ATATTTTTTC	TTACTGCCAT	5040
TTTTCTTTTT	ATCCCAAATT	TTCATATTAC	TAAACACAGC	TACTAGAATA	TTTCCAAATA	5100
TAAAGGTGCC	TATCACCCAA	TATATGGACT	CAGTTGTTAG	GTATTGTCGA	TCCAAGCCAT	5160
CCTTTAAATG	GAATAGTATA	GCAGTTTGGT	TAACAATCAT	AAAGGTTGGC	CAGAAACTTT	5220
TTTTGAAAAA	AGTAGACATT	TTCAATTATT	GTTGCCGCTT	TCTGTAAGGT	TAATACTCAA	5280
TAAAAATCAA	AAAGCAAAC T	AGGAAGCTAG	CCTCAAGCTG	TACTTGAGTA	CGGCAAGGCA	5340
ACGCTGACGT	GGTTTGAAGA	GTATAGGCTT	AGTATACTAC	TAGGCAAGCA	AATAAACAAA	5400
TAAACAAC TA	GAATAGAAAA	AGATAGGGCT	CTAAAAACTG	ACTTCTATTC	CTTAAAAACG	5460
AACCAGCTTG	ACTGATTCGT	CTTCTTACGT	TTATCTCCTA	CTTCCGATAC	ATTTTAAACT	5520
GTAGGAAGAG	GTCGCTATAT	TTCCCTGTCC	ATTTATGGTC	AAATTTCTCA	TAAACTTCTA	5580
GGTGT TTCAT	GGTTTCAACA	TCGGGATAGA	AGGCCTTATC	TTCTTTTGTT	TCCTCTGGGA	5640
GCAATTCCTT	CGCTGGTAGG	TTTGGTGT TG	AATAGCCGAC	ATACTCCGCA	TTTTGGAGAG	5700
CATTTTCAGG	TTTCAACATA	AAGTTGATAA	AGGCATAGGC	TGAGTTTTGG	TTTTTAACTG	5760
TTTTTGGGAAT	GACCATAT TG	TCAAACCAAA	GATTGCTGGC	CTCTGTCTGGT	ACCACATAAC	5820
GTAGATTTTC	ATTTTTTTCT	AACATTTGGC	TGGCTTCACC	AGAGAAGGTC	ACGCCGATTG	5880
CAACATTATT	CTGAATCATA	TAGCCCTTCA	TCTCGTCCGC	AACGATAGCC	TTGATATTTG	5940
GAGTCAGTTT	GTAGAGCTTA	TCCACTGTCT	CTTCCAAC TG	CTGCAGATCC	TTGGAGTTGA	6000
GGCTGTAGCC	GAGGGAATTG	AGTCCTAGTC	CCAGCACCTC	ACGCGCCCCA	TCAAAGAGCA	6060
TGATAGAA TT	CTTATACTCC	GGCTTCCAAA	GGTCATCCCA	ATGCTCAGGC	GCTTCATCTA	6120
CCATGGTTTC	GTTGTAGACA	ATTCCCTAAGG	TTCCCCAGAA	GTAAGGGATG	GAGAATTTAT	6180
TACCTGGGTC	AAAGGACTGG	TTGAGAAACT	CTGGTCCGAT	ATTTTCGATT	CCTTCAATTT	6240
TTGAATAATC	AAGCGGAACC	AAGAGGTCTT	CGTCCTTCAT	CTTGTTAATC	ATGTATTCAC	6300
TTGGAATGGC	AATATCGTAG	GTCGTTCAC	CCTGCTTTAT	CTTAGTGTAC	ATGGCTTCGT	6360
TGGAGTCAAA	AGTCTCGTAC	TGAACTTGAA	TTCTGTGTTT	TTCTGTAAAC	TGAGTCAAGA	6420
GTTTCAGGATC	GATATAGTCT	CCCCAGTTAT	AGATAACCAA	TTTTTGACTA	TCTCGACTAT	6480

514

TGATTTTACT ATCTAAATGA GTCGCAATTC CCCACAAGAC AAGGATAATC GCTGCAATTC	6540
CTGCTAAAAA TGAATAGATT TTTTTCATGC TTGCTCCTCC TTCTCACGAG AGATAAAGTA	6600
ATAACCTACA ACTAGGATAA TACTAAAGAG AAAGACTAGA GCAGACAGGG CATTGATTTC	6660
TAAGGAAATC CCCTTGCGAG CACGAGAGTA AATCTCGACT GATAGGGTTG AAAAGCCATT	6720
TCCTGTTACA AAGAAGGTCA CGGCAAAGTC ATCTAACGAA TAGGTGAAGG CCATGAAATA	6780
ACCAGTAATG ATAGACGGAG TCAGGTAAGG AAGCATGATT TCCTTGAACA TCTGAAATTG	6840
ACTAGCTCCC AAGTCATAGG CCGCATGAAT CATGTCGCCA TTCATTTTCCT TGAGTCGAGG	6900
CAAGACCATC AAGACCACGA TAGGAATGGA GAAGGCCACG TGACTIONGATA GAACGGTCAA	6960
AAAGCCAAGT GAAAACTTGA GTTGGGTAAA GAGAATCAAG AAGCTAGCAC CAATCATAAC	7020
GTCAGGCGCA ACCATGAGGA TATTATTGAG TGATAGAAAAG GCTTCTTGGT ATTTCTTACG	7080
AGACTGGTAG ATGTAAATGG CACCAAAAAGT CCCGATAATG GTCGCTATCA AGGCTGATAG	7140
GAAGGCCAAG AAAAATGTCT GAGCCAAAAT CAGCATGAGT CTCCCATCTC CAAACATGGT	7200
TTCAAAGTGA GTCCAGCTAA AACCTGTAAA GCTATTGATA TCATCACCAG CATTAAGGC	7260
ATAGCCAATC AAGTAAAAGA TAGGCAGGTA GAGGACCAGA AAGACCAGTC CCAGATAAAG	7320
GTGCGCAAAT TTTTTCATCG TTCTCTCCTT TCCTTAGTCA CCCACATGGT GATGAACATG	7380
GTCAGGATGA GAATCACACC GATGGTTGAA CCCATACCAT AGTTGTCATT GGTAGAAAA	7440
TTCTGCTCAA TAGCCGTCCT CAAGGTGATA ACGCGTTCCT ACCAATCAAA CGGGTCAGCA	7500
TGAAGAGACT CAAACTTGGG ATAAAGACCG ACTGAACCCC GG	7542

(2) INFORMATION FOR SEQ ID NO: 59:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9223 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

AAAACCAAAT TCCGGTATTT TAACCTATGC TGTAAATACC ATGAAGTCTG TCATGACAGA	60
TCAGGTCTAT AACATTAAGG TTGAGACAGA AAATGGAAAT TATGTTGGTG AAGCTAGCCA	120
TGTTTTGGTC CTTTTGACAA ATTACTTCGC TGATAAGAAA ATCTTTGAAG AAAACAAGGA	180
CGGCTATGCC AACATTTTGA TTCTGAAAAGA TGCTCTATA TTCTCCAAAT TATCCGTCAT	240
TCCTGATTTA TTAAAAGGGG ATGTTGTTCG AAATGATAAT ATCGAGTATA TCAAAGCGCG	300
TAATATTAAA ATCTCTTCAG ATAGTGAATT GGAGTCAGAT GTTGACGGAG ATAAATCAGA	360

515

TAACCTACCT GTAGAAATCA AAGTCCTAGC TCAGCGAGTA GAAGTATTTT CAAAACCGAA	420
AGAGGATTAG TATATAGAGA AAGCCTTTTT TAAGGCTTTT TGTATACTTT AAAAGATAGT	480
TCCTTTAACA ACGGACATTC CTTGCAAATA GTTTTACAAA AATAGTATAC TGGATTCAAT	540
GAGTTTGAAA ACGTTTGCGT AAAATTTGAA TGAATACTTT AGGAGACAAA TTGATGGAAT	600
TGAGTGCTAT TTACCATAGG CCTGAGTCGG AGTATGACTA TC'TTTATAAG GATAAGAAAC	660
TCCATATTCG AATTCGAACT AAGAAAGGGG ACATTGAAAG CATCAACTTG CACTATGGGG	720
ACCCTTTTAT CTTTATGGAG GAGTTTTATC AGGATACAAA AGAAATGGTC AAGATAACTT	780
CTGGTACCTT ATTTGACCAT TGGCAGGTTG AAGGTTCAGT TGACTTTGCA CGTATCCAGT	840
ATCTCTTTGA GCTCAGAGAT ACAGAAGGTC AAAATATTTT GTATGGCGAT AAAGGGTGTG	900
TGAAAATTC TCTAGAAAAT CTTTATGCAA TTGGGAATGG ATTTAAGTTG CTTAGCTTC	960
ATGAGATTGA TGCTGCAAG g'TTCCTGACT GGGTTTCAA TACGGTATGG TATCAGATAT	1020
TTCTGAAAG ATTTGCCAAT GGCAATGCTC TATTAAACCC AGAAGGGACT TTAGACTGGG	1080
ATTCTCTGT CACACCTAAG AGCGATGATT TCTTTGGTGG TGATTTACAG GGGATTATTG	1140
ATCATATGAA TTACTTGCAA GACTTGGGTA TTACTGGACT ATATCTTTGT CCCATCTTTG	1200
AATCTACAAG CAATCACAAG TACAATACGA CAGATTACTT TGAAATTGAC CGTCATTTTG	1260
GAGACAAGGA GACCTTTTCGG GAACTGGTGG ATCAAGCGCA TCATCGTGGC ATGAAAGTCA	1320
TGCTGGATGC GGTATTTAAT CATATTGGTT CGCAATCTCT TCAATGGAAA AATGTCGTCA	1380
AAAATGGTGA ACAGTCTGCT TATAAGGATT GGTTCATAT TCAACAATTC CCAGTGACAA	1440
CTGAAAAGCT AGTTAATAAG AGAGACTTAC CCTATCATGT TTTTGGTTTC GAGGACTATA	1500
TGCCTAAGCT AAATACAGCC AATCCAGAGG TCAAGAATTA TCTTTTAAAG GTTGCGACTT	1560
ATTGGATTGA AGAGTTTAAT ATCGATGCTT GGCGTTTGGA TGTGGCTAAT GAGATTGACC	1620
ATCAGTTCTG GAAGGATTTT CGTAAGGCAG TTTTAGCTAA AAATCCTGAT CTTTATATCC	1680
TAGGAGAAGT CTGGCATACT TCTCAGCCTT GGCTAAATGG AGATGAGTTC CATGCCGTCA	1740
TGAATTATCC TTTATCTGAT AGTATCAAGG ACTATTTCTT ACGAGGAATT AAGAAGACAG	1800
ACCAGTTCAT CGATGAAATC AATGGAGAGT CTATGTATTA CAAGCAGCAG ATTTAGAGG	1860
TCATGTTTAA TCTCTGGAT TCACATGATA CAGAGCGAAT CCTGTGGACG GCCAATGAAG	1920
ATGTTCAACT GGTAAATCA GCCTTAGCCT TTCTCTTTT ACAAAAAGGA ACACCGTGCA	1980
TTTATTACGG AACCGAGCTA GCCTTACTG GAGGACCAGA TCCAGATTGT CGTCGTTGTA	2040
TGCCTTGGGA ACGTGTATCA AGTGACAATG ATATGCTGAA CTTTATGAAG AGGCTGATTA	2100

516					
AAATTCGGAA	ATACGCGTCA	GTAATCATTT	CGCATGGCAA	GTATAGCCTT	CAAGAAATCA 2160
ACTCTGATCT	AGTAGCTCTG	GAATGGAAAT	ACGAAGGACG	GATCCTCAAA	GCAATATTCA 2220
ACCAATCAAC	AGAAGATTAT	CTTTTAGAGA	AAGAAGCAGT	AGCACTAGCA	AGCAATTGCC 2280
AAGAATTGGA	TAATCAGCTT	GTCATCTCTC	CAGATGGATT	TATGATTTTC	TAAAAACTAG 2340
TTGATGAAGA	TTATGGTACA	TTTCATACCT	TATATAGTAT	AATAAGGCTA	GTTACTAAAC 2400
TTGTAAAGGA	GAACCTAAAT	GAATTGTAGA	GGACATGAAA	CAAGACAAAG	AATTGTTAGA 2460
GATTTTGAAG	TTCAGCCTAA	AGCACATATT	AAGCTGTTAG	CAAAATCAACA	AAAACATAGT 2520
GATGCAGGAG	CAACTATTGA	AGATGAATAT	TATGTATTTA	TCGCTGAGAG	TAAAATTGAT 2580
GGCAAGAAGG	AAGTTATTC	GTGTTGCATG	GGTGCGGCAA	GGGATTTTTT	AGAACTAATT 2640
AATCACAAAG	GGCTACCTCT	TTTAAATCCG	CTTGTAAGTG	ATTCTCATGT	AAATAATAGA 2700
CAAGAATATG	ACAATACAGG	GAGTGGAAAT	TTATAACCTG	AAAAGTGGAA	TGAAACTGCA 2760
AAGCAGCTTT	ATAATGCTAT	AATGTGGTTG	ATTATTTTAT	GGAATGCTAA	GCCGGATACA 2820
CCTTTATTTA	ATTTTAAAGA	CGAAGTAATT	AAGTATAAAA	CATATGAGCC	TTTTGAAAGC 2880
AGTATAAAAA	GAGTAAATAC	TACTATAAAG	AATGGTAGTA	AAGGGAAAAC	TCTGACTGAG 2940
ATGATTAATG	GCTACAGAGC	GGATAACGAT	ATTAGAGATG	AAATTTGTAA	CTTTAATATT 3000
CTGAAAAATA	AAATTCGTGA	TATGAAAAAC	CAACAAGGAA	ATACAATGGA	ATCTTACTTT 3060
TAGTTATTGT	TGAATTTTGG	GTATTCTATA	AAATATCCTA	ATTGAGATTT	AAATAGTAGA 3120
CTATACAATA	TAGTTAAAT	ATCAGTAAAA	ACAACACTTT	ATTGAGGTAT	TGGATACGCT 3180
TTGCTAATAG	CCTAATAATC	ACATGTGGAG	TGTTGCTACA	ACGAAAAAGG	TGATAATCCT 3240
TGATTTCAAG	CTATTTTATA	AGCATTTTGT	CTTTGTAGAT	AAAGGCAATT	TTGACAATAA 3300
AAATCCTAAA	AGGTGAATCG	TTATAGATGT	ATTTGTAGAT	ATCGTTTGCG	CATCGAAAAA 3360
ATTAATACAA	GAATAAATAT	TTATAGCTCT	TTAGGTGACT	TTTATAGAAG	TAAAGTTTAG 3420
GATAGAAAAA	CAAGAAATAA	CGCACCATTT	TTGGTGCGTT	ATGCTTTTTT	ATGCTATAAT 3480
GGATTTATAA	AAATAAAGGA	GTTTGCTATG	ATTGGAAAGA	ACATAAAATC	CTTGCGTAAA 3540
ACACATGACT	TAACACAAC	CGAATTTGCA	CGGATTGTAG	GTATTTACAG	AAATAGTCTG 3600
AGTCGTTATG	AAAATGGAAC	GAGTTCAGTC	TCTACCGAAT	TAATAGACAT	CATTTGTCAG 3660
AAGTTTAATG	TATCTTATGT	CGATATTGTA	GGAGAAGATA	AAATGCTCAA	TCCTGTTGAA 3720
GATTATGAAT	TGACTTTAAA	AATTGAAATT	GTGAAAGAAA	GAGGTGCTAA	TCTATTATCT 3780
CGACTCTATC	GTTATCAAGA	TAGTCAGGGA	ATTAGCATTG	ATGATGAGTC	TAATCCTTGG 3840
ATTTTAATGA	GTGATGATCT	ATCTGATTTG	ATTCATACGA	ATATCTATCT	AGTAGAAACT 3900

517

TTTGATGAAA	TAGAGAGATA	TAGTGGCTAT	TTGGATGGAA	TTGAACGTAT	GTTAGAGATA	3960
TCTGAAAAAC	GGATGGTGGC	CTAATGGAAA	TCCAAGATTA	TACTGATAGT	GAATTCAAAC	4020
ATGCTTTAGC	AAGGAATCTT	CGTTCACCTGA	CAAGAGGAAA	AAAGTCCAGT	AAGCAACCTA	4080
TAGCGATTTT	GCTTGGAGGG	CAAAGTGGTG	CCGGTAAGAC	TACAATTTCAT	CGTATTAAAC	4140
AGAAAGAATT	TCAAGGAAAT	ATTGTTATCA	TAGATGGTGA	TAGTTTTTCGT	TCTCAGCATC	4200
CACACTATTT	AGAACTGCAG	CAAGAATATG	GCAAAGACAG	TGTAGAATAT	ACCAAAGATT	4260
TTGCAGGAAA	AATGGTAGAG	TCTTTAGTAA	CAAAATTGAG	TAGTTTGAGA	TACAATCTTT	4320
TGATAGAGGG	AACTTTACGA	ACAGTTGATG	TTCCAAGAA	AACAGCACAA	CTCTTGAAAA	4380
ATAAGGGATA	TGAAGTACAA	TTGGCCTTAA	TTGCGACAAA	GCCTGAATTG	TCGTATCTAA	4440
GTACTCTTAT	CCGTTATGAA	GAAGTGTACA	TTATCAATCC	AAATCAAGCA	CGCGCAACTC	4500
CAAAAGAACA	TCATGATTTC	ATTGTAAATC	ATCTAGTTGA	TAACACACGA	AAATGGAAG	4560
AACTAGCTAT	CTTTGAAAGA	ATTCAAATTT	ACCAACGAGA	TAGAAGTTGT	GTATATGATT	4620
CAAAAGAAAA	TACAACTTCA	GCAGCAGATG	TTCTTCAAGA	GTTACTCTTT	GGGGAGTGGA	4680
GTCAGGTAGA	GAAGGAGATG	TTGCAGGTGG	GGGAAAAGAG	ACTTAATGAA	TTACTTGAAA	4740
AATAACAAT	TGATATTTT	AGGAGAATAG	AAATGAGAGG	GTTTAATAAC	AAGATAAAGT	4800
CTGTTTATCA	AGAACTAACA	AATTCCAAAG	AGAAATTCGG	TAGCTTTCAC	AAGACTTTAA	4860
TTCATTTGCA	TACACCTGTT	TCTTATGATT	ACAAGCTATT	TTCTAATTGG	ACTGCAACGA	4920
AATATAGAAA	AATTACTGAA	GATGAACTAT	ATGATATATT	TTTGGAAAAT	AAGAAAATAA	4980
AAGTTGATAA	GACAATTTTT	TTTAGTAATT	TTGATAAGGT	TGTTTTTTCT	AGTTCAAAAG	5040
AATATATTAG	TTTCTTTATG	TTAGCAGAGG	CAATCATAAA	AAATGGAATA	GAAATAGTTG	5100
TAGTAACTGA	TCATAATACT	ACCAAAGGTA	TTAAAAAGTT	ACAAATGGCA	GTCTCAATCA	5160
TAATGAAAAA	TTATCCGATT	TATGATATAC	ATCCTCATAT	TTTACATGGA	GTAGAAATTA	5220
GTGCAGCAGA	TAAATTGCAT	ATTGTATGTA	TATATGATTA	TGAACAAGAA	TCATGGGTTA	5280
ATCAATGGTT	AAGTGAAAAT	ATTATAAGTG	AGAAAGATGG	AAGTTATCAA	CATTCACTGA	5340
CTATAATGAA	GGATTTCAT	AATCAAAAAA	TAGTTAACTA	TATTGCTCAT	TTCAATAGTT	5400
ATGACATTTT	GAAAAAAGGT	TCTCACTTAT	CAGGTGCATA	TAAACGAAAA	ATTTTTTCTA	5460
AAGAAAATAC	ACGATTTTGG	AGTTTAATAT	TAACTCGAAA	GAATCTTCGC	AACAACTTGA	5520
TATTCTCTAT	AAAGAAGTTG	GTGTATTAAAG	TTTGGGACAA	AAAGTTGTAG	CCATGCTTGA	5580
TTTTTTATTA	GCATATAGTG	ATTATTCTAA	AGACTTCAGA	CCATTGATTA	TTGATCAGCC	5640

518

TGAAGACAAT	CTAGACAATC	GTTATATTTA	CAGGCATTTA	GTTCAGCAGT	TTAGAGATGT	5700
GAAAGCTCAA	CGTCAAATTA	TTTTAGCAAC	ACATAATGCT	ACAATTGTAA	CAAATCTAT	5760
GACAGATCAA	GTTGTTATTA	TGGAGTCAGA	TGGAGTTAAC	GGATGGATTG	AATCACAGGG	5820
ATATGTTAGT	GAAAAATATA	TAAAAAATCA	TATCATCAAT	CAATTAGAGG	GAGGAAAAGA	5880
TTCCCTCAAG	CATAAAATGT	CTATATATGA	GACGGCTTTA	TCAGAGTAGA	GTCAGAAAAA	5940
GTAGGTTAGA	AATTAGCCT	ACTTTTTTCT	TTGTCCGACA	GGCATAGTGT	ACATCTGAGG	6000
TCCAAGTCCT	CTGTGGATAT	TTGCTGCAGA	TGAAACCAAT	AGCGACTCCT	AAGCCTGAAT	6060
ATCGTGAGGT	AGGGGGGATA	GGAAGGAATT	AGCGAAATCA	AGGTTCTACA	AACAGAATCG	6120
TGACTTGAAG	CCATATATAG	CGGATGAGGA	ACTCTAAAAT	CCAAATAGGT	GTCGTAACTT	6180
ATATACGTAA	ATTACGAGAG	TAAACTAGGA	AAGATGTACG	GCTTATTCCG	TGAGCGTTTA	6240
GGACGTAGTA	CAACGAATCA	TGGGAGTCAG	CTGAACACAT	AGTATTGAAG	AAATTTCTGT	6300
AATGGAATG	GAGCGAAGAA	GTGAACAATT	AAATGAATAC	CTCTCTAATT	AAATTTGTCA	6360
ATTCTAATTC	CTGGTATGAA	AAGACAGTGA	CCTGAAAATG	TAAACGATGG	GAGCTGATCA	6420
TAAATATAGG	ACGGTACATG	CAGTGGTGTT	AGAGATTAGT	CCTTACTTGA	TTTGTGATAA	6480
CTTCCCCAAA	TTTCTTCTGC	TATACTTTTC	TCAACTTTTA	AAAATCCAAC	TAAGAATTTT	6540
ACCTGGGGGT	TTGGGGGCGG	AGCACTAAGT	TATCTTATCG	TTAGCTGTCA	AAACTGGTAG	6600
GTTTGTAGAT	GCTGGCGATA	TGATTTTTTG	GATATTGTGG	ACACAATATC	TGAGCTCGCA	6660
AAGCCTTACA	AGAATGAAAA	TCAGTTGTTG	GAAAAGTGTA	CTGACATTGT	ATGGTAGCTC	6720
ACATTGTGAG	TACAAGTATT	TTGGAAAGGA	AGTAGCAGTA	TGAAACGAGA	TGTGCGTGAT	6780
ATTCGGAAC	AATTTCTGTT	AACAGAAGCA	GAAGAAAAGC	AAATCTAGC	TTTGATGAGA	6840
GAGCGGGGAG	AGACTAATTT	CTCTGATTTT	CTTCGTAAAA	GTTTACTTTC	CTCTGATTTA	6900
CAAAAACAGA	TGGAGACATG	GTTTGCCCTC	TGGCAATCCC	AAAAACTAGA	ACAAATCAGT	6960
CGTGACGTTT	ATGAAGTTTT	AATCTTGGCA	CAGTCAGAAC	GTCAAGTCAC	CCAAGAGCAT	7020
GTATCTATTC	TCTTAACGTG	CGTGCAGGAA	TTGATTCAAG	AGGTTGCAAA	CACCATACCC	7080
CTCAGTAAAG	AATTTCTGTA	GAAGTACATG	AGGTAAGCAC	ATGGAACATC	GTTACCGAAC	7140
CAATCTCAAG	AAAGTGTTTT	TGTCTGATAG	TGAGTTGAAC	CAACTAAATA	TAAATATCGA	7200
TCAAAGTGGT	TGTAAATCCT	TTTCTGAATA	TGCGAGACGA	ACTCTACTCG	ATCCTGGTAT	7260
GAATTTTATC	ACGATTGACA	CAAACGGTTA	CCAAGATTTA	GTGTTTGAGT	TAAAGAGGAT	7320
TGGCAATAAT	ATCAACCAGA	TTGCTCGAAG	TGTTAATCAA	TCTCAGTTAA	TTTCTGGTGA	7380
AGAATTGCAG	GAGTTGAAAA	AAGGAATTGG	TGAATTGATA	AAAGAAGTTG	ATAAGGAATT	7440

519

TAATCTGCAA	GCGCAGAAGC	TAAAGGAGTT	CCATGGTCAT	CACTAAACAC	TTTGCCATTC	7500
ACGGAAAGAG	TTACCGCAGA	AAGCTTATCA	AGTACATTCT	CAATCCTGAG	AAAACCAATA	7560
ATCTTGCCCTT	GGTGTCTGGAC	TATGGCATGA	AGAATTTTCT	GGACTTTCCT	AGCTATGAGG	7620
AAATGGTGCA	GATGTATCAT	GAAAATTTCA	TCAGCAACGA	TACGCTTTAC	GATTTTCGCC	7680
ACGACAGGAT	GGAAGAAAAT	CAACGAAAAA	TACACGCTCA	CCACATCATT	CAGTCTTTCT	7740
CGCCAGAGGA	TCATATCACT	CCTGAACAAA	TCAATCGGAT	AGGTTATGAG	ACTGTGAAGG	7800
AATTAAGTGG	TGGCAAATTT	CGTTTATATCG	TTGCGACCCA	TGTTGATAAA	GACCACCTGC	7860
ACAATCACAT	CATTATCAAT	TCAGTAGATA	GCAATTCTGA	CAAAAAGCTC	AAGTGGGACT	7920
ACAAGGTGGA	GCGAAATCTT	CGCATGATTT	CTGACCGTTT	TTCTAAAATC	GCAGGTGCTA	7980
AAATCATTTGA	GAACCGCTAT	TCTCACCAGC	GGTATGAAGT	CTATCGTAAG	ACTAATCACA	8040
AGTATGAACT	CAAGCAGCGA	CTCTATTTTT	TGATGGAACA	TTCTAGGGAC	TTTGAGGATT	8100
TCAAAAAGAA	TGCTCCGCTA	CTACATGTGG	AGATGGATTT	CCGTCACAAG	CATGCCACCT	8160
TTTTTATTAC	GGACTCAACT	ATGAAACAGG	TGGTGCCTGG	CAAGCAACTC	AATCGCAAGC	8220
AGCCTTACAC	AGAAGAATTT	TTTAAGAACT	ACTTTGCCAA	AAGAGAAATA	GAAAGTCTCA	8280
TGGAATTTTT	ATTGCTGAAA	GTTGAGAATA	TGGATGATTT	ACTTCAGAAA	GCAAAACTTT	8340
TTGGACTAAC	TATCAATCCT	AAACAAAAGC	ATGTTTCTTT	TCAATTTGCA	GGAGTGAGG	8400
TAAAGGAGAC	AGAGCTAGAC	CAGAAAAATC	TTTATGATGT	AGAGTTTTTC	CAAGATTATT	8460
TTAAAAATAG	AAAAGATTGG	CAAGCTCCAG	AAACTGAGGA	TTTCGTTCAA	CTTTATCAAG	8520
AAGAAAAGTT	ATCCAAAGAA	AAAGAACTTC	CAAGCGATGA	GAAGTTCTGG	GAGTCCTATC	8580
AAGAGTTCAA	GAGTAACAGA	GATGCCGTTT	ATGAATTTGA	GGTGGAGTTG	TCACTCAATC	8640
AAATTGAAAA	AGTAGTGGAT	GATGGAATTT	ACGTCAAGGT	CAAGTTTGGT	ATTCGTCAGG	8700
AGGGACTTAT	CTTTGTGCCG	AACATGCAGC	TTGATATGGA	AGAGGATAAG	GTGAAGGTTT	8760
TCATCAGGGA	AACCAGCTCC	TACTATGTCT	ACCACAAAGA	CGCTGCCGAG	AAAAATTGTT	8820
ATATGAAAGG	TCGAACCTTA	ATTAGACAGT	TCAGCTATGA	AAATCAAACC	ATTCCATTAC	8880
GCAGAAAAGC	GACAGTCGAT	ATGATTAAAG	AGAAGATTGC	GGAAGTGGAT	GCTTTGATTG	8940
AACTGGAAGT	AGAAAATCAA	TCTTATGTCA	CGATTAAAGA	TGAGTTAGTG	CATGAACTAG	9000
CAGCGTCTGA	ATTGAGAATC	AATGAGTTGC	AAGAACGAAT	GTCAACCTTG	AATCAAGTAG	9060
CAGAATATCT	ACTGGCTTCA	GTTGAAAGTA	AGCAAGAAAT	GAAATTAAAT	CTTTCAAAAC	9120
TGAATATAAC	TGAGAATATC	AGTGCTAATA	TTGTTGAGAA	AAAATTGAAG	AGCCTGGGGA	9180

520

ATCAACTGGA ATTGGAAAGG GGCAGGTATG AAAAGATGGT AGT

9223

(2) INFORMATION FOR SEQ ID NO: 60:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 6827 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

TCTGCTGGCT ACCATCATCT GACTTGGGCA AGACCAAAGT CTTAGTTACA ACTGTATTCT	60
TCTCAGCATT TTCAATAACT GGCAATGCCG ACTGAAGCGT ATCTTTTCT GTTTTGTAG	120
CTGGTCCAGT TTCTTTTTC TGTCCGCAAC CAACCAGGAC AAAAAGGAAA GCTAGACTAA	180
CAAGAACTAT TTTTTCATT TCTTCTTCT TTCTTTTGA AATTAAAATA GAATAAGACT	240
GGGAAGTGCT CCCAGCCTTG ATGTTTATAG AGTCGCACGC AAACGTGCTT CTGCATTTTC	300
TACATTACGG ACAGAGCGTG GTAGGAAGGC ACGAATATCG TCTTCCTTGT AGCCAACTTG	360
CAGGCGTTT TCATCTACAA GGATTGGGCT CTTTAAAATT CTCGGTGTT CCATAATCAG	420
ATTGAGAACT TCATTGACAC TCAAATCTTC AATATCCACT CCAAGGGCTT TGGCATAGCG	480
ATTTTAGAC GAAACGATGC TGGCTATTCC GTTATCTGTT TTGGTTAGAA TATCCAGTAA	540
TTCTTCTCTC GTAATTCCTT CTTTACCAAG GTTTTGTCT TTATAACTTA ACTGGTGGGC	600
ATTGAGCCAG GTTTTGCTT TTTTACAGCT AGTACAACCT GAGACTGTAT AAATTTTAAT	660
CATGTACCTA CCCCTTTCGC TACATGTTAC TATCAGTTTA GTCTATTATA CCATAAAAAA	720
CATCCGACTT GCGACCTATT TTTAATTTTT TTGACTTTT TTCGTCATTT TCGTACTTTT	780
TTCTTGACAA ACAACTAAAT GACTATCAAC TCTTTTGAG CTAGGGTCAA TAATTCACAA	840
CCTGTCTCTG TAATCAGGAT ATCATCCTCG ATACGAACGC CATATTTGCC TTCGATATAG	900
ATACCTGGTT CATCGGTCAA GGCCATACCT GTCTTAATAG TTTCTGTAGA AGTCTGACTA	960
AAGTAGGGTT CCTCATGGAT ATCCAGACCA ATACCGTGGC CAATGCCGTG AGTAAAGTAG	1020
TCACCATAAC CTGCCTCAAT GATAATATCA CGAGGGATTT TGTCAAAGTC ACGGAAACCT	1080
AAGCCTGCCT TAGCTTGCTC AATCAAGGCT TGGTTAGCTT TTAGAACCGT ATTGTAAATC	1140
TCTGCCCTGCT CATCGCTAAC ATGCCCTAGA TAGATAGTCC GGGTCATATC ACTGACATAG	1200
TGGTCATAGA GACAGCCGAA GTCCATGGTG ATGGCTTCTC CCAACTCCAC TGGTTGTGC	1260
ATTGGATGGG CATGGGGTTT AGAAGAATTG ATACCGCTAG CTAGGATCGT ATCAAAAGAT	1320
AAGCCAGATG CTCCCAACTC ACGCATGCGG AAATCAAGGA AGTTGGCAAT CTCAATTTCA	1380

521

GTTTTTCCTG	GTTTGATAAA	GTCAAGCGCA	TCGCGGAAAG	CTTGGTCTGA	GATAGAACAA	1440
GCCTTGCGAA	TCGCTGCAAT	CTCTGCCTCA	TCCTTAATCA	TACGAAGACC	TTCCACAAAC	1500
TGAGTTTGTG	GAAGCAAGTT	CAAACCTGCA	AAAGCTGCCT	GCATACGGTG	GTAATAAGAC	1560
ACTGAAATCT	CATCTTCAAA	ACCGATACGA	GTCAAGCCCA	TGTCCTTAAC	AATTCCTGCA	1620
ATGACAGCCA	ATTCATCACG	ATCAGCCACA	ATCTCAAAAC	CACTGGTTTC	TTGCTTAGCT	1680
GCGATGATAT	AGCGAGAGTC	TGTCACTAAG	ACCTGACGGT	CACGACTGAT	AAAGACTGTT	1740
CCGTTTGAGC	CCCAAAAACC	AGTCAAATAA	TAGACGTTTT	TAAGATTGTT	GATGATGATA	1800
CCATCTAGTT	CTTTTCTTG	CATTTTAGCT	AGAAATGCTT	GTACGCGTTT	ATTCATGATG	1860
TAACTTTCCT	TTCAAATAGT	GTCTGTATA	GCTGGCTTCG	TTGGCAGCTA	CTTCTTCTGG	1920
AGTTCCTGTT	ACGATGATGG	TTCCACCACC	GACACCGCCC	TCAGGTCCCA	AGTCAATGAT	1980
ATGGTCTGCC	GTCTTGATAA	CATCCAGATT	GTGCTCGATG	ACGAGGACTG	TATTGCCATC	2040
GTCTACAAAG	CGAGCTAAAA	CCTTGAGCAG	GCGAGCAATG	TCCTCTGTAT	GAAGCCCTGT	2100
CGTCGGCTCA	TCCAGAATGT	AGAAAGATTT	TCCTGTCGAT	CGTTTGTGGA	GTTCGCTAGC	2160
TAAC TTCATA	CGTTGGGCTT	CTCCCCCAGA	AAGGGTGGTA	GCTGGCTGTC	CCAAGGTCAC	2220
ATAGCCTAGC	CCTACATCCT	TGATGGTCTG	GAGTTTGCCT	TGAATTTTCG	GAATGTGTTG	2280
GAAAAATCT	ACCGCATCGT	TGACCGTCAT	ATCCAAGACC	TGCGAAATAT	TCTTTTCCTT	2340
GTAGTGAAC	TCTAGGGTTT	CACTGTTATA	GCGGGTTCCG	TGGCAAACCT	CACAAGCCAC	2400
ATAAACATCT	GGCAAGAAGT	GCATCTCAAT	CTTGATAATC	CCGTCACCTG	AGCAAGCTTC	2460
ACAGCGACCT	CCCTTGACGT	TGAAACTGAA	GCGCCCCTTC	TTGTAGCCTC	GAATCTTGGC	2520
TTCATTTGTC	TGAGCAAAAA	GGTCACGTAT	ATCGTCAAAA	ACTCCTGTAT	AGGTAGCTGG	2580
GTTAGACCTC	GGCGTCCGTC	CGATAGGGCT	CTGGTCAATA	TCAATCAAAC	GGTCGACATG	2640
CTCAATCCCT	GTAATAGTCT	TAAACTTACC	AGGTTTGTCT	GAATTACGGT	TGAGCTTCTG	2700
GGCAATGGCT	TTTTTGAGAA	TGCTGTTGAT	TAGAGTCGAT	TTCCCTGAAC	CCGACACACC	2760
TGTCACTGCG	ATAAATTTTC	CTAGTGGAAG	GCGAGCCGTG	ACATTTTGCA	AGTTGTCTCT	2820
ACGCGCTCCT	ATCACTTCAA	TAAAACGACC	ATTTCCGACA	CGGCGCTCTT	CTGGTACTGG	2880
GATGACACGT	TTGCCTGACA	AGTACTGACC	TGTGATAGAC	TTGCTGTTGC	GAGCCACTTG	2940
CTTAGGTGTA	CCTGCTGCAA	CAATCTCACC	ACCAAAAACA	CCGGCACCAG	GACCAACGTC	3000
AATCAGATAA	TCAGCCTCAC	GCATGGTATC	TTCGTCGTGT	TCCACCACGA	TAAGAGTATT	3060
GCCCAAGTCA	CGCATCTTTT	TCAGACTGGC	AATCAGGCGA	TCATTGTCCC	TCTGGTGAAG	3120

522

ACCGATTGAC	GGCTCGTCTA	GGATATAGAG	GACACCTGAT	AGGTTGGAAC	CAATCTGGGT	3180
TGCCAAACGA	ATGCGCTGAC	TTTCCCCACC	TGAAAGGGTT	CCTGCTGAAC	GTGACAGGGT	3240
TAGATAGTTA	AGACCCACAT	TATTAAGGAA	GGTCAAACGA	TCCTTGATTT	CCTTGAGAAT	3300
GGGACGAGCA	ATGATGGCTT	CATTTTCAGA	CAAAGTTAAC	TGGCTCACCA	AGTCCAAGTG	3360
GTCAGCGATA	GACAGGTCTG	AGATTTCTCC	AATATGTGGC	CCTTGCTGGC	CGCCACACG	3420
GACAGACAAG	GCCTGGTCAT	TGAGACGATA	GCCTTGACAG	GTTCCGCAGG	TCAGCTCATT	3480
CATGTAGAGA	CGCATCTGAG	TGCGAGTGTA	ATCGCTATTG	GTTTCATGGT	AACGACGTTT	3540
GATATTATTG	ATAACTCCCT	CAAACGGAAT	GTCGATATCG	CGCACGCCAC	CAAATTCATT	3600
CTCATAGTGG	AAATGGAATT	CCTTACCATC	TGACCCATAG	AGAATCAAGT	TCTTATCTTC	3660
TTCTGACAGG	TCCTCAAAAG	GCTTATCCAT	AGCCACTCCA	AAGACTTTCA	TGGCCTGCTC	3720
TAACATGTTT	GGATAGTAGT	TGGATGAGAT	AGGATTCCAA	GGTGCTAGCG	CTCCCTCACG	3780
TAAGGTTTTG	CTAGCATCTG	GCACTACCAA	ATCAGTATCC	ACCTCCAGCT	TGATGCCCAA	3840
GCCGTCACAC	TCACTACAAG	AGCCAAAAGG	AGCATTGAAA	GAAAAGAGAC	GAGGCTCTAA	3900
CTCTGGGACA	GTAACACAC	AACTGGACA	GGCATAATGC	TCAGAGAACA	ACAACTCCGA	3960
GTCTGCCATG	GTGTCGATAA	TGACATAACC	TTCTGCAATA	CGAAGGGCAG	CCTCAATGGA	4020
ATCAAAGAGA	CGACTACGAA	TGCCCTCCTT	GATAACAATA	CGGTCAACCA	CGACATCGAT	4080
ATTGTGTTGC	TTGCTCTTAG	ACAACCTCTG	CACTTCGGTC	ACATCATAGA	CTTCCCCATC	4140
CACACGGACA	CGAACATACC	CGTCTTTCTG	AACCTTCTCG	ATAACACTCT	TATGTTGGCC	4200
TTTTTTCTTG	CGGATGACAG	GAGCCAAGAT	CTGCAAGCGC	TGGCGTTTCA	GTAACCTCAA	4260
AACCTTATCA	ACGATTTGCT	CCACAGAAGA	AGCATTGATA	GCTCCATGTC	CGTTGATACA	4320
GTAAGGCGTC	CCCACACGTG	CGTAGAGGAG	ACGCAGATAG	TCATTGATTT	CAGTCGTCGT	4380
TCCCACCGTC	GAGCGAGGAT	TTTACTAGT	CGTTTTCTGG	TCGATGGAAA	TAGCTGGGCT	4440
GAGACCATCA	ATGGCATCTA	CATCTGGTTT	TTCCATATTT	CCCAAGAACT	GACGAGCGTA	4500
GGCGGACAAA	CTCTCTACAT	AGCGACGTTG	TCCCTCCGCA	TAGAGAGTAT	CAAAAGCCAG	4560
ACTGGACTTC	CCTGAACCTG	ACAAGCCAGT	CACGACAACC	AACCTGTCTC	GCGGAATCTC	4620
CACATCAATA	TTTTTTAAAT	TATGGGCACG	CGCCCATGA	ATGACAATTT	TATCTTGCAT	4680
CTTGTTCTTT	TCTAGTCCAT	TATTGCTTAC	CATTATACCA	AAAAAAGTGA	GATTCTATTA	4740
CCCAAAAGGC	CGATTTTGTA	GTATAATAGT	ACAGTGTGAA	AAAATCTGAA	AAATGAGAAA	4800
GGATAAGGGA	TATGAAACAA	GTTTTTCTCT	CTACAACAAC	TGAATTTAAA	GAGATCGATA	4860
CGCTTGAACC	GGGTACTTGG	ATCAATCTCG	TCAATCCGAC	TCAAAATGAA	TCACTCGAAA	4920

523

TCGCCAACAC	CTTCGATATT	GATATTGCTG	ACCTTCGAGC	ACCGCTCGAT	GCGGAAGAAA	4980
TGTCTCGTAT	TACCATTGAA	GACGAGTATA	CCCTGATTAT	CGTAGACGTG	CCGGTCACGG	5040
AGGAAAGAAA	TAACCGCACC	TACTACGTAA	CCATCCCGCT	TGGTATTATC	ATCACTGAGG	5100
AAACCATTAT	CACTACGTGT	TTGGAACCAC	TACCTGTCCT	TGATGTCCTT	ATCAACCGTC	5160
GATTGCGTAA	TTTCTATACC	TTTCATGCGTT	CACGTTTTAT	CTTTCAAATT	CTTTATCGCA	5220
ATGCAGAGCT	TTACCTAACA	GCCCTTCGTT	CAATCGACCG	CAAGAGTGAA	CAAATCGAAA	5280
GTCAACTGCA	TCAATCAACT	CGTAATGAAG	AATTGATTGA	GCTCATGGAA	TTGGAAAAAA	5340
CTATCGTCTA	TTTCAAGGCC	TCCCTCAAAA	CAAATGAGCG	CGTGATTAAAG	AAATTGACCA	5400
GTTCAACCAG	CAATATCAAG	AAATACCTTG	AGGACGAAGA	CCTGCTTGAA	GACACCCTGA	5460
TTGAAACCCA	ACAGGCCATC	GAGATGGCAG	ATATTTATGG	AAACGTCCTG	CATTCTATGA	5520
CAGAGACCTT	TGCCTCTATC	ATTCTAACA	ACCAGAACAA	CATCATGAAA	ACCTTGCCCC	5580
TTGTGACCAT	CGTCATGTCC	ATCCCAACCA	TGGTCTTTTC	TGCCTACGGG	ATGAACTTTA	5640
AGGATAATGA	AATCCCCCTA	AACGGAGAGC	CAAATGCCTT	CTGGTTAATC	GTCTTTATCG	5700
CCTTTGCTAT	GAGTGTCTCG	CTCACTCTCT	ATCTCATCCA	TAAAAAATGG	TTCTAAGAGG	5760
AGTTCCTATG	TCTCAAATTG	ATCTACAAAA	ATLAACTAAG	AAAAACCAAG	AGTTTGTCCA	5820
CATTGCTACC	CAACAATTCA	TCAAAGATGG	GAAAACAGAC	GCTGAAATCC	AGACTATTTT	5880
TGAGGAAGTC	ATTCCCCAAA	TCCTTGAGGA	GCAATCTAAA	GGTACAACCTG	CCCGTTCCCT	5940
ATACGGCGCA	CCAACTCATT	GGGCTCATAG	CTTCACTGTC	AAAGAGCAGT	ACGAAAAAGA	6000
GCATCCAAAA	GAAATGATG	ACCCAAAAC	GATGATTATG	GA CT CAGCTC	TTTTCATCAC	6060
TAGCCTCTTT	GCCCTTGTC	GCGCCCTCAC	AACCTTCCTT	GCGGCAGACC	AAGCTTTCGG	6120
CTATGGATTG	ATTACTCTTC	TATTAGTTGG	ACTGGTTGGT	GGATTTCGCT	TCTACTTGAT	6180
GTACTACTTT	GTTTACCAAT	ACTATGGACC	AGATATGGAT	CGCAGTCAAC	GTCCACCTTT	6240
CTGGAATCT	GTACTAGTTA	TCCTAGCTTC	TATGTTCCCT	TGGTTGCTTG	TCTTCTTTGC	6300
AACAAGCTTC	CTACCAGCTA	GCCTTAACCC	AGTACTGGAT	CCATTGCCAC	TAGCTATTAT	6360
TGGAGCAGCC	CTCCTAGCCC	TTTCGCTTCTA	TCTCAAGAAA	CGCTTGAATA	TCCGTAGTGC	6420
AAGTGCAGGA	CCAACACGCT	ATCAAGAATA	AGAAAACGAT	AAAAGCAACT	GCAGGTGCGG	6480
TTGCTTTTTC	ACTTACTTTT	TTGAGTTATA	TTCAATGAAA	ATCAAAGAGC	AAACTAGGAA	6540
GCTAGCTGCA	GGTTGCTCAA	AGCACAGCTT	TGAGGTTGCA	GATAAACTG	ACGTGGTTTG	6600
AAGAGATTTT	CGAAGAGTAT	TAAAAGTATT	CTTCTGAAAT	CCCACATAGC	TTTCTCTTAT	6660

524

ATTTTGTGAT AAAATAGGCT CAATCTATTT CTAGGAGGAT GAGATATGGT TTCTACTATT	6720
GGTATTGTTA GTTTATCTAG TGGCATTATC GGAGAGGATT TTGTCAAACA CGAAGTGGAC	6780
TTGGGTATCC AACGTCTCAA GGATCTGGGA CTCAATCCCA TCTTTTT	6827

(2) INFORMATION FOR SEQ ID NO: 61:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11864 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

CTGGCTAGTT GCATAGAGCA AAGTGCTTC TTCATCAACA AAACCGTTCA TTTCAAATA	60
GGAAAGCAGC TCATCAGGAC TCTCCAAACG AATCCCTTTG TAATCCAGCT CAACTGCCAC	120
CTCTTTCAAG GCTGCAAGAA GAAGTGTTCC CAGGCCCTGT CTCTGATGGT CAAACTCGAT	180
GACTAAAGAA TGTACTTTTA GACATTGCGG ATTGTCTGAC TGGGGACTTG ATAAAATATA	240
GCCTAAAGT TGATTTTCAT CCCTAGCTAG AAGAAAGGTA TCCGCACACT TACGGATACT	300
TTCTTCTAAA ATATGGGAAA GTTGCTGCTT TTCAGCTGGA AAAGACGAGG TCTGAAGTGC	360
CCCTATCTCA GGCAAATCAG ACTTGCTTGC CTGAATGATC TTAATTGGAA TTTCCATGGG	420
AACATCCTAT TGAACATTGC TTGTCAAGTT AGACAAGAGA CGCTCAAATG AGTATTCATA	480
GGTTTGATG TCTCCTGCTC CCATAAAGAC GTAAACAGCA TTGTCATGGT CTAGGAGTGG	540
AGAAACATTT TCAACAGTAA TCACTTGGTG TTTTGTGTG ATTTTGTGG CTAGGTCTTC	600
TACCTTAACG TCACCATGAT CTACTTCACG AGCCGAGCCA TAAATTTGCG CTAGATAAAC	660
AGCATCTGCT TGGTTTAAAG CATGGGCAAA GTCGTCCAAC AAGGCAATGG TTCTTGTAAG	720
GGTATGCGGT TGAAAGACTG CTACAATTTC CTTGCTTGGG TATTTCTGAC GAGCCGCATC	780
CAAGGTCGCA ATAATTTCTG TTGGATGGTG GGCAAAGTCA TCGATAATCA CTGTATCATT	840
GACAATTTTC TCAGTGAAAC GACGTTTAAC ACCGGCAAAT GTTTTCAAGT GCTCACGCAC	900
CAAGTTCAAA TCAAATCCTG CTGTGTAAAG AAGACCAATA ACGGCTGTCG CATTCATGAT	960
ATTGTGACGA CCAAAGGTG GAATGTGGAA TTGCCCAAG TTTTGTCCAC GGAAATGAAC	1020
GGTGAAGGTT GAACCAGTTA TTGAACGAAG AAGATCACTA GCTACAAAGT CATTGCCTTC	1080
AGCTTCAAAA CCATAATAAT AAATTGGTGC ATCAGACGTA ATCTTACGCA ATTCAGCATC	1140
TTACCATAG ACAAAAAGAC CCTTGGTGAT TTGTTTGGCA TAGTCGTAA AGGCATTAAA	1200
AACATCCTCG AGACTTGTGA AATAATCTGG ATGGTCAAAG TCAATGTTGG TGATAATAGA	1260

525

GTATTCTGGG	TGGTAAGGCA	TGAAGTGACG	CTCATATTCG	TCAGATTCAA	AGACAAAATA	1320
TTTGGCATTG	GCCGAACCAC	GACCTGTCCC	ATCTCCAATC	AAGAAGCTGG	TATCTGTAAT	1380
GTGAGACAAG	ACATGAGACA	ACATACCTGT	CGTTGAAGTT	TTTCCATGTG	CTCCTGCTAC	1440
TCCCATGCTA	ACAAAGTCAC	GCATAAAGCT	ACCTAGAAAC	TCATGGTAAC	GTTTGTAGCT	1500
GATACCATTT	TGGTCCGCAT	AGGCAATTTC	GACGTTGTTA	TCTGGACGAA	AGGCATTTCC	1560
AGCGATAATT	TCCATATCAC	CGTCTAGATT	TTTTTTCATCA	AAAGGAAGAA	TGGTAATTCC	1620
TGCGCTGCTCA	AGACCGCGTT	GGGTAAAGTA	GTACTTTTCA	ACATCTGATC	CCTGAACCTT	1680
GTGCCCCATC	TGGTGCAACA	TCAAGGCCAA	GGCACTCATC	CCTGATCCCT	TAATTCCGAT	1740
AAAATGATAT	GTCTTTGACA	TGTTTTCTCC	CCTATTCTGT	CATTCTGGTC	AGATTCAACT	1800
CTTGGGCAAC	CCGACGTCTT	TGTTCTGTTT	GTTTACTTTT	TTTATTGTAG	ATTTGGCTCT	1860
TCTTTAGAAA	ATCATAATTG	TTTTTCTTTG	GAGCAGGTGC	TGACACTTCT	TCATTCTTGG	1920
TAGGGATAGA	ATGAACTTCT	TCCGCCAAGA	TATAATGAGA	CTGGGTCAAT	TTTTGGCTAT	1980
ATTTGACAAA	TTCACCAGGA	TTTTCTTTT	GGAAAGGAGC	TGTCGGTTGA	TTGCCCTGTC	2040
TAACTAGACT	GGGCTGAGAA	TGACGTCTCG	CAAGGCTGAA	ATCCTGAGTT	AGGTAGTTAG	2100
CAGAGCGTTT	CTTTTTC AAG	TCCGCACGCG	CTTCTTCACG	CGCCACCTCC	GCATAGCTCT	2160
TTCTTCTTTT	TTTAACCCCT	AAAGGAGCCT	TTTTAGGTTT	TTCGACTTGC	TTTTCAATCG	2220
GTTTTACTGG	TTTTTCTTCA	GCAATAGGAG	CCCATCTTAA	ATAATTTTTA	TCTCGATACT	2280
CACCCTTGAT	ATTACTGATC	AGATCAGACT	CATCATAGAG	ATTCATGACT	GGCATTTTCA	2340
TCAACATGAC	CTCGTCATCT	GACACCAATG	GAAATCGTTC	TTGTTCATT	TTCTATTTCC	2400
TTTCAACACT	TCATTATAGC	GTATTGTCTT	GATTTTTC A A	GTGCTGGCTT	CAGAAATTCC	2460
CAAAATTTCT	CTAATTTCTG	CTAGGGTCAG	ACTACCACGT	GACTCTGTGC	CGTCCAATAC	2520
TTGTGACACC	AGATGTTTCT	TTTGTCTTTG	GAGTTCCTGA	ATTTTTTCTT	CAATGGTTCC	2580
CTTGGTCACC	AAGCGATAGA	CCTCAACCGT	TTCTTCTTGA	CCCATCCGAT	GGGCACGGCC	2640
AATGGCTTGC	GCTTCCACCG	CAGGATTCCA	CCAAAGGTCA	ACCAAGATCA	CTGTATCTGC	2700
ACCTGTCAGG	TTCAGACCGA	CCCCACCAGC	CTTGAGGGAA	ATCAGAAAGG	CATCTCTTTC	2760
TCCTTGGTTA	AAGGCCTTGG	TCATGTCTTG	TCTTTCCTTG	GCTGGGGTTG	AACCCGTAAT	2820
TTTAAAGGAA	GTCAGGCCCA	AGTCTGGCAG	TTCTTGTTCA	ATTTTTTCCA	ACATTCCTTT	2880
GAACTGAGAG	AAAATCAAGA	CACGGTGTCC	GCCGTCTGCC	ACCTGTACCA	GTAGGTCTCG	2940
GAGACTATCT	AGTTTGCCGC	TGGCTCCCTG	ATAATCTTCC	ATAAACAGGG	CAGGAGTGTC	3000

526

ACATATTTGA	CGCAAGCGCA	TCAAACCAGA	TAAAATTTCC	ACACGACTTC	GCTGAAATTC	3060
CTGTTCTGAC	ACTTGAGCCA	GATGGTCTCG	CATCTGTTGT	AACTGGGCAA	GGTAAATAGC	3120
CTTTTGCTGG	TCTTCCAGTT	CATTTTATA	AACCACCTCA	ATCAAGTCTG	GCAATTCAGT	3180
CAGAACTTCT	TCTTCTTGC	GTGCGATCAC	GAAAGGCTTG	ATAAACTGAG	CCACTCGCTC	3240
TGCTGGCAAT	TTCATAAATT	CTTCTTGCT	TGGCAAAAGT	CCAGGCATGA	CGATTTGGAA	3300
AATAGACCAC	AACTCACCCA	GATGGTTTTT	AATCGGAGTT	CCTGACAAGG	CAAAGACCGA	3360
CGGCACCACA	AATTGTCTCA	AGGTCTGGGC	AATCTTGGTC	TGGGCATTTT	TCATGACCTG	3420
AGCCTCATCT	AAGAAAAGGA	AGTCAAAGGC	CATCCCTTGA	TAAAACCTCAC	TGTCCTGACG	3480
GAAGGTGGCA	TAGCTAGTCA	CATAGATTTG	ATGGCTCTCG	GCAAGAATCT	CCTCACGACT	3540
TGCTTTCAAA	CCATGAACAA	CAGTCACATC	CAACTGTGGA	GCAAATTTCT	GAAACTCATC	3600
TGCCCAGTTG	TAAATCAAAC	CCGACGGAGC	GAGAATCAAA	ACCCGACTTT	CTTTTGTCAC	3660
TTGACTAGTC	AAAAAAGCAA	TGGTCTGAAG	GGTTTTCCCA	AGTCCCATAT	CATCAGCCAA	3720
AATCCCACCA	AAACCATAAT	GATGGAGCAT	CTGCAACCAG	CCAATTCCCT	TTTCCTGATA	3780
ATCTCGCAAG	TCAGCCTTGA	CCTGAGTTGC	TTGCAAAGGA	AAGTCCTCTG	GATGCGTCAA	3840
ATCCTGGGCC	AGATTCTGGA	ATTCTTGTTA	AAAAGAAACA	CGGTCTCGCC	CTTCAAAGAG	3900
ATGAGCTAAA	CTGTAGGCCA	AGGATTTCCG	AGCCTGCAAG	GTCCCATCTT	TTAATTCAAA	3960
TTGCCCCAGT	TCCTGTAGAT	TTTGGCGAAT	TTTCTTGGTT	TCTTCATCGA	AAAAGTAAAC	4020
TTGATTAGAC	GAATCAATAT	AAAAATCCTG	ATTGGCAACC	AAGGCCTGCA	TGGCTTGGTC	4080
GATTTCCCTC	TGGACAATAT	TTTGAAAATC	AAACTGGATT	TCCAAGAGAC	CTCCCTTGGA	4140
GGCAATCTGC	ACCTGAGGAC	TCGCTAGGCT	ATAAAGCTCT	TCTAGTTTAT	CTGATAGGTC	4200
AACATGCCCG	AGTTTTTCAA	AGACTGGAAT	GATATCATGA	AAAAAATGAT	AGACAGACTC	4260
CGCTTTTAA	GCCTGACGCC	AAGATTGAAA	ATCGGCCTCA	AAGCCCGCAG	CCAAACAGAC	4320
TTGGAATAAT	CTTTCTTCTA	AGTCTGCGTC	ACTTGAAAAG	GGTAATTCTT	CTAGCTCTTG	4380
TCGGCTAGAT	ACCTGTCTAT	TTCCATAATC	AAACTGAATT	TCTAAACGAA	TCCGATTATC	4440
TTCTTCCCTG	TCAAAGTAAA	AAGAGGGCGC	AAAAGTTTGT	ATTTGTAGAC	GTCTGAGGAC	4500
TGAAACGGTG	CCCATCTGGA	TAAAAAGAGT	CAGACAGGAG	GCCAATTTGT	CTCGATCACT	4560
GCTATCAAA	TGCAGGTATT	TCTTTCCTTG	TTGACCCACA	GGTAACGCTT	TAATTTCTTT	4620
GAGAAGACGC	ATCTGCTGGT	CTGTTAAAAA	ATAAACCTGA	CCTTTATGGA	AAAGTACTGC	4680
TCCCTGATAA	AAGACATTGA	CCCTAGGACT	CTCACTGATT	TCCATTTCAA	AATAATCCGA	4740
GTATTCTGTT	ACTGTAAAGG	CAATAGATT	GGCATCAGCA	TGCATATCCT	GAAAAAGCAG	4800

527

GGTTTGGTAG CTATCCACTT GATGGTCAAA TTGAAAATGG GGCAAGGCCA TCAGTAAATT	4860
CACACCCTGC TCAAAAAGG TCAGAGGGAA AAAGAGGTGC CGACCTTGGT TTTGGAAAAA	4920
GAGGTCTGGA ACCAGCCCTT CCTCCGTTAG TCCGTGCAAG AAAGTCAAAA GTTCTTGGCT	4980
GGCATCATCA AAGGCTTCCC AAGAAAGAGA CTCCTCATAA ATCTTGCCAA TCATATACGA	5040
CTTCTCTGTC TCGACAATCC TTAAAAAAG TGGAAATATCC CGAATGACAT AGTATTTTGT	5100
GCTATTGATT TGGCCGATTC TCAGAGTCCA CAAGATATGA TTGGTTCCTG CTTCCACCTG	5160
ACCCACAGCT GATAACTCAT AGGCGCATTC TGATTTTGGG GATAAAATTC GATCCAAAAA	5220
CTTGCCACCC AAGGTCACCT TGGTTTCAAC AGCCTCTTTT TCTTCATGAC CTTCTTCCAG	5280
ACTCCACAAG ATTTCTGAC CACGCTCATC ATTTTTCAGA AAATGCTCTA GCGCTGCCAA	5340
ATGCACACAG TAGCCCTCTT TTTGAAAAA ATCACAGGCA CAAAAACCA AATCATCCTC	5400
TAAACTATAG CGCAGTTCTT CTTCTGCAAC GCGAGCGTAG AGCCGATTGT TCTTTTCCTT	5460
GATGATATCA ACCTTACCAG TTTCATAAAG GGCACACCT TCGATACGAA TTTTCCCCGG	5520
AATCAATTTA GCCATATTTT CACCTTTACC TTATCTTTT ATTATACCAT ATTTTCGCCT	5580
ATGAAAATAG CCTTCTAGGA AGACTTTTCT CCTAGAAGGC TGGATTTTGA ACGTTTGGCA	5640
AAAGTAGCCA CAATCCGCTG ACAGACTTCT TGCAACAGAG ATTTGGGCAT AGCTATATTG	5700
ATGCGGGCAT GGAGACTTCC TTCCTCTCCA AAATCCAAAC CACGGTTGAG GATAACCTTG	5760
GCTTCATTTC TCAACAATC TTGCAATGT TCATCAGTCA GGTCATAAGC TGAAAAGTCA	5820
AGCCAAATCA AGTAGGTACC TTGCGGTTTC ATGACCTTGA TTTTAGTCTC TTTTCCAAAT	5880
AGATCCATCA CATAATTGAT GTGGTCTTCA AAGACTTGCT TGAGTTCCTC TAGCCAATCT	5940
TTACCGTATC GATAGGCAGC TTCTGTCGCC AAATAACCCA AGCCTGAAAT TTCATGCTGA	6000
TTATTGGCCA ACAGGCGTTT CTGGAAAGCC AGTCTCAACT TAGGATTTTC AATGACTGCA	6060
TAGGAATTTT TTGTTCCAGC AATATTAAAT GTTTTAGTGG CACTGCTCAA GACGATAGCA	6120
AAATTTTGA AGGCAGGATT GATGGTATTG AAAGACTGGT GTTTGTGACC AAAGAGGGTC	6180
AAATCTTGGT GAATCTCATC CGAACTAAC AAAACACCGT GTTTTGGCA GAGTTGGCCA	6240
ATCTTCTCCA ACACTTCTTT TTCCCAAACA CGTCCACCAG GATTGTGAGG GTTGCAAAGA	6300
ACATAGAGTT TAACCTCCTC TTCCACCAA TCCTTTTCAA GTTGGTCAAA GTCAATCTCA	6360
AACAGACTAT CCTTTCCAC TAAGGAATTA GTAATCAATC TACGATTATT CAACTTGACA	6420
CTGCGAGCAA AGGGTGGGT GACAGGCGTG TTAATTAAAA CCGCCTCGCC TTCTTTTGTA	6480
AAGGTTTGAA TAGCTGTTGA GATGGCTGGT ACCACACCCT CGATAAAGAC AAGAGCCTCT	6540

528

TTGTCAAAGT TGTAACCGTA TTGTGTAGCT TCCCACTTTT GAACTTCCTT AATTAAGTCT	6600
TCACTGGCAT AGGTATAACC ATAAACCAGT TGGTCTGCGT AAGTTTGCAC GGCTTGGCGG	6660
ATTCAGGCA AGACCACAAA GTCCATATCC GCTATCCAAG CTGGTAGAAC TTCACTATCC	6720
GTTTCTGTTT CTTTCCATTT ATAGGTATGG TGCCCTAAAC GGTGGGCAG GCTTGTA AAA	6780
TCATATTTTC CCATCTTTGT CTTATCCTTC TATGGCTTGG CGCAAATCTG CAATCAAATC	6840
TCTAGCATCC TCAATCCCAA TAGACAAACG CAAGAGGTCA TCTGTCAAAC CATAAGAATG	6900
GCGTACCTCT GCTGGAATAT CAGCATGAGT TTGAGTCGTT GGATAAGTAA TAAGACTTTC	6960
CACTCCACCC AAACCTTCCG CAAAAGAGAA GACCTTGAGA CTGTTCAAAA TATGAGGAAT	7020
GCGTGTTTCA TCGGCTACTT TAAAGGAAAT CATGCCTCCA CGACCAGTGT AGAGAACTTC	7080
CTTAAGTCTT GGAGAATCCT TCAAAAAGGC AACCCTTCT TGGGCGTTAG CTGTTGAGCG	7140
CTCCATACGA AGAGACAAGG TCTTGAGACC ACGAAGCAAC TGGTAGCTGT CAAATGGAGA	7200
CAAGACTGCC CCGTTGTAT TAAGATTGTA AAAAGCTTC TCGTATAGTT CTAAACTATT	7260
GGTCACAACC ACTCCAGCCA AGACATCATT GTGGCCTGCT AGATACTTGG TTGCTGAATG	7320
GACAACGATA TCTGCTCCAT CTTCAATCGG ACGTTGGTAG ATAGGGCTAT AGAAGGTATT	7380
GTCCACCACC ACTTTGGCAC CCTTAGCATG AGCCAATTTT GCTAGTTTTT CGATATCAAA	7440
TTCCAACATC AAGGGATTGG TTGGGGTTTC GATATAGAGA ACATCCACAT CCTTTTCTAA	7500
CTCGGCAATC AACTCTTCTT CTGTATTGGC ATAGGTAAAA TGGAATGAC CTCCTGCTC	7560
CACCTGGTTA AACCAGCGAA AAGAACCACC GTAAAGATCA CGCACTGCCA AGACCTTACT	7620
TCCTACTGGA AAGACGCTAA AGGCCAGTAC AATAGCTGAC ATCCCTGAGC TAGTCGCTAG	7680
GGCATAGTCT GCTGACTCAA TAGCCGCCAA GACTTCCTCA GCCTTACTAC GAGTTGGATT	7740
TTTAGTGCGC GTATAGTCAA ACCCAGTAGA TCGACCAAAC TCTGGATGCT GATAGGTCGT	7800
TGAAAAATGA AGTGGTGCA CCAAAGCACC TGTTGCCTCA TCAGACTTGA TCCCTGCTTG	7860
TGCTAAAATT GTGTAAATGT GTAATTCCTT GCTCATACAA TTCCTCCAAA TCTATAGTAA	7920
CTATTGTACC ACTTATTTTG TATCCTTCGT TTTCTTGTTT TCAAGAGCTA GTTATAGTTT	7980
CAAACTATAT AAAAAGGGAG TTTTTCCTGC TCCCTTTAAT AGACTATAAA ATGGTGAATC	8040
TCAAAAGACA CCTTCACTCT ATCATTTGCT CCTGCACAAA ACGAGCATAA CGCTCATGAT	8100
TTTCCAGTAG TTCCTTATGA GTTCCTGAGC CAGTGATTTT CCCCTCCTCT AAGAAGAAAA	8160
TACAATCCAC ATCTTTTACC GTTGACAAAC GATGCGCTAT AATCACAACC GTCTTCTCCT	8220
TTAGTACAGA ATAGAGGCTA CTGATAATCG CATACTCAGA ATCCGCATCA AGATTAGCAG	8280
TGGCTTCATC AAATATAAGA ATTTTCAGCAT CTTTAAAGTA GGCTCTAGCT ATTTGAAGTC	8340

529

TTTCGTTTCGC	CCCCCTGACA	AGAGTCGTCC	GCGTTCACCA	ACTTCAGTAT	CTAGTCCCTC	8400
TTTCATGGAG	CGAATCTCAT	CACCTAGTGA	TACTAAGTCT	AGCACTTTCA	TCAATTCATC	8460
ATCAGTTACT	AAGCGATTCA	AACCGAGACA	AAGATTGTCA	CGAATACTGC	CAGATAAGAC	8520
TGCATTATTT	TGTGAAACCC	AAGCGATTTT	ACTTCTCCAT	TCTTTTAAGT	TAAAATCATA	8580
TATACTTGAT	TGCTCCATTA	GAATATCTCC	TGAAAGCGGT	TTATAAAACC	GCTCTAACAA	8640
ACGCACAATC	GTTGATTTTC	CTGATCCAGA	TGGTCCAACA	AAAGCAATTT	TTTGCCCCCTT	8700
GAAAATTGAA	CAAGTAATAT	CCTTTAAGAC	AGGTCGATTT	TCATCATAAC	CAAAATAGAC	8760
ATGGTTAAAA	TTCAACCCCTC	GTCCTGATAC	CGATTTTCCT	CCCTCAAATT	TTTCTTTAGG	8820
AACTGCAAGC	AAGTTCTCCA	GTGCAACTGA	AGATCCCTTG	CTCCTAGAAT	AAACAGTTAC	8880
AAAATTAGCT	ATATTACTAA	TAGGATTAAG	TAATTGAAAG	AGGTAAATCA	AAAACGAAAC	8940
CAAGGTTCCC	ACAGATATAT	ATCCTGCGCT	GACCCGATAA	CCCCCATAGG	TTAGCATCAC	9000
AGCTATAGTC	GCAAAGATAA	ATAAGAGAGC	AAACGGGGTC	TCAAAAGAAG	TAACCCATATC	9060
TGATTTCACT	GAATTGTTTT	GTACCCTTTC	AATACAATTA	TCCAAAACAT	CCTGTACACT	9120
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TGTTAAATTT	CCTCCTGTAA	ACGACGACTA	TACTTTTCAC	TGATATTGGA	AAGGGGAAG	9240
ATAATAAACA	TCATACAAGG	AAGAGTGATG	AATAAAAGTA	GAGAAAGATT	CCAATCAAGA	9300
CTAAATAAGA	CTACAATGGA	ACCAAGTACC	ATAACTAAAC	TCAGAATAAT	ATTTGGGAAA	9360
GTCGTAATTA	AAACTCACG	AATGACACTC	GTGTCATTGA	CAATGGCAGA	AGTCAACTCC	9420
CCACTTTGGC	TCTTATCAAA	GAAGGATTTT	TCTACATAAA	TCAACCCCTC	TATCACTTTT	9480
TTCTTGATTT	TTGCTATCTT	TTTTTCACCC	GATTGACTAA	ACAGATAGTA	ACCAATAGAA	9540
GAAAACAAGG	CTTGACCAAT	AAAAATCAAA	AACGATTGAA	ATACTTTGGA	GCCTATATTT	9600
TCAATAGAAC	TCCCATCTAT	TAAATCCTTT	AAGATAAGGG	GAAGCAACAA	AGCAAGTAGA	9660
CTAGACAGAA	CAAGTAAGAA	ACTCCCCATA	ATCACCTTAG	TATCTACTCT	TAATAATTTT	9720
AATTTTCATA	ATACTCCTTA	TAATATTTCA	ACGGATAAAG	TCGGGAATAA	CTCAATTTGA	9780
GGATAAAATC	TAATAAATCT	TCCTATAACA	AAACGCATAA	CATCTAGGAT	TTTATATACC	9840
TGATATTATG	CGTTTTTAAG	CACAAAGACT	TCTTACACAA	ACTTATCTAC	AATTAGATTT	9900
TATTTGACAT	GTTTTGCCAA	TTCTTCTTGG	GCTTTTTTAT	TGGATTCCTC	TTTTTCTTTC	9960
AACCATTTTT	CTCTGGCTTT	TGCATATTCG	TCTGTTGTGA	CAATCTTATC	TTGTACTTTG	10020
AGGTATTTAT	ATGATTCAAC	CCCTTTTGTA	CCGGTTAAAC	CATAGGCAGC	AGCAAATGGT	10080

530

ACGGTTCTTC	TCAATGATGG	TGTTCCCCCA	CGCGAAACAC	TTGGAAGAAC	TAAAGAACTA	10140
TCAATCAACC	AAGCTTGAAT	ATCAGCATAT	TTCTCATAAC	GTTTGGCCGG	ATCTTGCTCT	10200
TTATTAGCTT	CTTCCAACAT	TTGAGTATAG	ACATCCAGTC	CAACTGCCTT	AGCCTTGTCA	10260
TTGGCCTCAC	CAGGCTCTAG	TCCAAGATTT	TGCAGAAATC	CTCCACTATT	AGTATTAAAA	10320
ATATCGAGAT	AGGTGACGG	GTCTTGATAA	TCAGGTCCCC	AACCGCCATG	ATATAAATCA	10380
TAATCTTTCT	GAGCAGCTGT	TTGAGCAAAG	TAGCCTGAAC	TGTCAAATC	ATCTGATGTT	10440
AATTGCTGAA	TGTCAATCAC	TACATTATCA	GAACCTAAAA	CAGATTCAAT	TGATTGTTTG	10500
ATAGAACTAA	CTCCTTGTAT	GCCTACTTTA	TCTGTACTTT	CCACAGTCTT	ATCCAAGTGG	10560
ATTGGGAATT	GAACACCCTT	TGCTTCGAGT	TCTTTCTTAG	CTTCCGCAA	CTTAGCCTTG	10620
GCTTTCTCAG	GATTGTAGTA	AGGGTCTTGA	CCATCCGCAA	AGTTGATACC	TTGCCATTCC	10680
TTACCATAGT	TGACCATCTT	AGAGGCTACA	ACTTCACCAA	AGTCTTTTCC	CTTGATACTG	10740
ACAAAGTTTG	GAGGAACCAC	TAGGTACGC	AAAATCTTTG	TTGCACCTTC	TTTCCCTTCA	10800
GACTGAGCCC	CATAAGATGT	TCTGTCAAAA	GCAAAATTGA	TAGCCTGACG	GAAGTTTTTA	10860
TTGAGAATCG	CTTCCTGAGT	CGATTCTTTT	TCAATGTCAC	TTGTTTTAGA	AGTATAATTG	10920
TAAGACTTCC	TATCTAGGTT	AAAATTAAAG	AAATATGAAG	TTGAATTTTG	CATACTATAG	10980
ATGATATTGT	TTTTGTATTT	TTCTTTAATC	CCTTCATAGC	TGGAGCTGTT	AGGAAAAGA	11040
CGAGCCGTAG	TATAAGCACC	AGCTGTAAAA	TTACGTTCCA	GTGATCTTTG	GTCGTACCA	11100
TCATAGTAGG	TCAATTTTAC	ATCGTCTACA	AAGACATTCT	TAGCATCCCA	GTAATTAGGG	11160
TTTTTCTTAT	ATTCAATAGC	AGATTTTGAG	ACAAGTGCTT	TCATCAAGAA	AGGTCCATTG	11220
TACAAAATAC	TAGATGGATC	CGCCTTCCCA	AAATCATCCC	CTTTTGATTT	CAGGAAATCT	11280
GCATTAACAG	GAAAAAGTAT	CGTTGCAAGT	GTTTTTGAAT	TCCAGTAAAG	TTCTGGTTTA	11340
ACCAAAGTAT	ATTGAACCGT	TTGGTCATCA	AGTGCCTTGA	CACCGACAGT	TGAAAAGTCG	11400
CTTGTTTTAC	CAGTGATATA	GTCATCCAAA	CCAGCAACAG	AGTCCTGCAC	TAGATACAAG	11460
GCTTCTGATT	TTTTATCAGC	TGCATATTGC	AAACCTGTCA	CAAAATCCTG	GGCAGTTACA	11520
GGCGCATATT	CTTCTCCCTC	AGAAGTAAAC	CAC TTGGCAT	CCTTACGAAG	TTTGTAGGTA	11580
TAGGTCAAAC	CGTCTGAGA	AACAGTCCAA	TCCTCTGCTA	ATGATGGAAT	AATATTCCCA	11640
TATTGGTCAT	TTTCTAATAA	CCCGTCTACC	AAATTGCAA	CAATATCGGA	TGTTGCTGCG	11700
CGGTTTTCTG	CTAGATAGTT	CAAGCTAGAT	GGATCACTTG	AATAAACATA	GTTGTAGGTT	11760
TTTGACGCCG	TGCTAGAATT	TCCACACGCG	CTCAATAAAA	CTCCTGTACC	CAGGACAAGA	11820
CCTGCCAAGG	TTAGATATTT	GCTCTTAGAC	TTTTTCATTT	CCGG		11864

531

## (2) INFORMATION FOR SEQ ID NO: 62:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2412 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

TAAC TGCACT AAACATAATA TAAGGAGAGA AAATGTCTGC AATAGAACGT ATTACAAAAG	60
CTGCTCACTT AATTGATATG AACGATATTA TCCGTGAAGG GAATCCTACT CTACGCGCGA	120
TTGCTGAGGA AGTCACTTTC CCCCTATCTG ACCAGGAAAT CATCCTAGGC GAAAAGATGA	180
TGCAATTCCCT TAAACATTCC CAAGATCCTG TCATGGCTGA AAAAATGGGA CTCCGCGGTG	240
GTGTTGGACT GGCTGCTCCC CAGTTAGATA TCTCAAAACG CATTATCGCT GTTTTGGTAC	300
CTAATATTGT TGAAGAAGGC GAAACTCCAC AGGAAGCCTA CGATTTGGAA GCCATTATGT	360
ACAATCCAAA AATCGTCTCT CACTCTGTTC AAGATGCTGC TCTTGGCGAA GGAGAAGGTT	420
GCCTGTCTGT TGACCGTAAC GTGCCTGGCT ATGTTGTTCG CCATGCCCGC GTTACTGTTG	480
ACTACTTTGA CAAAGATGGA GAAAAACACC GTATCAAAC TAAAGGCTAC AACTCCATTG	540
TTGTTGAGCA TGAAATTGAC CACATTAACG GTATCATGTT TTACGATCGC ATCAATGAAA	600
AAGACCCATT TGCAGTTAAA GATGGTTTAC TGATTCTTGA ATAAAGAAAA TCCCGTTGCA	660
AGACGGGGTT TTGTGTTATA ATAGAGGCAT GAAAACAAAT GATATTGTCT ATGGTGTCCA	720
CGCCGTTACC GAAGCCCTCC TTGCAAATAC AGGAAACAAA CTCTACCTCC AAGAAGATCT	780
CCGAGGTAAG AATGTTGAGA AAGTCAAGGA ACTAGCTACA GAAAAGAAGG TGTCATTTC	840
TTGGACATCA AAAAAATCTC TCTCTGAGAT TACTGAAGGT GCTGTTTCATC AAGGTTTGT	900
TCTACGAGTG TCTGAATTTG CCTATAGCGA GCTAGATTAC ATCCTTGCAA AAACACGCCA	960
AGAAGAAAAT CCACTTCTAT TGATTCTAGA TGGTCTAACC GATCCCCATA ATCTGGGTTC	1020
TATCTTGCGA ACAGCCGATG CGACCAATGT TTCAGGTGTC ATCATTCCCA AGCACCGTAC	1080
TGTCGGAGTA ACTCCTGTCT TTGCCAAAAC AGCCACAGGT GCTATTGAAC ACGTtCCAAT	1140
TGCCCGAGTG ACCAACCTCA GTCAAACCTT AGGATAAACT TAAGGATGAA GGTTCCTGGA	1200
CCTTTGGAAC GGATATGAAC GGTACTCCTT GCCACAAGTG GAATACAAAA GGGAAAATCG	1260
CCCTCATCAT TGGAATGAA GGAAGGTA TCTCTAGCAA CATCAAAAAA CAGGTCGATG	1320
AAATGATTAC CATTCGATG AATGGACATG TTCAAAGCCT TAATGCCAGT GTTGCTGCGG	1380

532

CCATTCTCAT GTACGAAGTT TTCCGAAATA GACTATAAAA AAGTTTCCAG TCATCTGATT	1440
GGAAACTTTT TTATGATTAA CTATGTTCTG TAATGAATTT ATAGGCTTCT TGACCAGCGA	1500
TAGCTCCATC TCCAACCGCT GTTGTTACTT GGCGAAGGTC TTTCAAGCGA ACATCTCCAA	1560
CTGCAAAGAT ACCGTCGACT GCAGTTTTC TGTGGTTATC TGTCACAATC CATCCTGCCT	1620
GATCTTGGAT ATTCAATTCT TTAACAAAAT CGCTAAGAGG GTCCAAACCA ACATAGATAA	1680
AGACACCACC GAAGGCTTGT TCTGTCACTT GACCTGTTTT CACATTTTCA AATACGACTG	1740
ATTCTACTCG GTTTTCACCC TTGATTTCCC TTAATACAGA ATCCCAGATA AAGCTGATTT	1800
TTTCATTTCG AAAGGCGCGA TCTTGTAATA CCTTTTGGGC ACGAAGTTGG TCACGACGGT	1860
GAACAATGGT AACAGTCTTA GCAAACGAG TCAAGAAGAG GGCTTCTTCA ACAGCTGAAT	1920
CTCCACCACC AACTACCAAT AAATCTTGGT CACGGAAGAA AGCACCATCA CACACAGCAC	1980
AGTAAGAAAC ACCACGACTG TTCAGTTCTT CTTCTCCAGG CACTCCCAA GGACGGTGTT	2040
TAGAACCAGT TGCTACGATA ACTGTACGTG TTTTCATATG TTGGTCATCA GTCATCACTT	2100
TCTTAAATC ACCATGGCTT CGACATTTT AACATAACCA TAAATGTGCT CAACACCAAG	2160
ATTTTCAAGT GGTTCAAACA TCTTTTCAGC CAATTCAGGT CCACTAATAT TAGCGTATCC	2220
TGGGTAATTT TCGATATCAG ATGTATTATT CATCTGACCA CCTGGCAGAC CACCTTCAAT	2280
CAAAGCTACT TTTAGATTGC TTCGAGCAGC ATACAAGGCC GCAGTCATCC CTGCAGGTCC	2340
AGCACCGATA ATAATAGTAT CGTACATATA GATTCCTTCT TTCTTGGTGT AACTATCTTT	2400
ATTCTAACTC TG	2412

## (2) INFORMATION FOR SEQ ID NO: 63:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7760 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

CCGATTGTTT GGAATTTTGT TCTCATCATT TAGAAGGTGT TGCAAGAGCA GAGTTTACCT	60
TGGTGCTTCA TACCAAATTG GGAGAAGCCT CTGTTTGGC AAATATTGTA GATGTAAACA	120
AGGATGAATG GATTTTAGGA ACAGTTGCTG GTGCCAATAC CTTATTGGTT ATTTGTCGAG	180
ATCAGCACGT TGCCAAACTC ATGGAAGATC GTTTGCTAGA TTTGATGAAA GATAAGTAAG	240
GTCTGGGAG TTGCTCTCAA GACTTATTTT TGAAAAGGAG AGACAGAAAA TGGCGATAGA	300
AAAGTTATCA CCCGGCATGC AACAGTATGT GGATATTAAA AAGCAATATC CAGATGCTTT	360

533

TTTGCTCTTT CGGATGGGTG ATTTTATGA ATTATTTTAT GAGGATGCGG TCAATGCTGC	420
GCAGATTCTG GAAATTTCCCT TAACGAGTCG CAACAAGAAT GCCGACAATC CGATCCCTAT	480
GGCGGGTGTT CCCTATCATT CTGCCCAACA GTATATCGAT GTCTTGATTG AGCAGGGTTA	540
TAAGGTGGCT ATCGCAGAGC AGATGGAAGA TCCTAAACAA GCAGTTGGGG TTGTTAAACG	600
AGAGGTTGTT CAGGTCATTA CGCCAGGGAC AGTGGTCGAT AGCAGTAAGC CGGACAGTCA	660
GAATAATTTT TTGGTTTCCA TAGACCGCGA AGGCAATCAA TTTGGCCTAG CTTATATGGA	720
TTTGGTGACG GGTGACTTTT ATGTGACAGG TCTTTTGAT TACACGCTGG TTTGTGGGA	780
AATCCGTAAC CTCAAGGCTC GAGAAGTGGT GTTGGGTTAT GACTTGCTCG AGGAAGAAGA	840
ACAAATCCTC AGCCGCCAGA TGAATCTGGT ACTCTCTTAT GAAAAAGAAA GCTTTGAAGA	900
CCTTCATTTA TTGGATTGTC GATTGGCAAC GGTGGAGCAA ACGGCATCTA GTAAGCTGCT	960
CCAGTATGTT CATCGGACTC AGATGAGGGA ATTGAACCAC CTCAAACCTG TTATCCGCTA	1020
CGAAATTAAG GATTTCTTGC AGATGGATTA TGCACCAAG GCTAGTCTGG ATTTGGTTGA	1080
GAATGCTCGC TCAGGTAAGA AACAAGGCAG TCTTTTCTGG CTTTTGGATG AAACCAAAAC	1140
GGCTATGGGG ATGCGTCTCT TCGGTTCTTG GATTCATCGC CCCTTGATTG ATAAGGAACG	1200
AATCGTCCAA CGTCAAGAAG TAGTGCAGGT CTTTCTCGAC CATTTCTTTG AGCGTAGTGA	1260
CTTGACAGAC AGTCTCAAGG GTGTTTATGA CATTGAGCGC TTGGCTAGTC GTGTTCTTT	1320
TGGCAAAACC AATCCAAAGG ATCTCTTGCA GTTGGCGACT ACCTTGCTA GTGTGCCACG	1380
GATTCGTGCG ATTTTAGAAG GGATGGAGCA ACCTACTCTA GCCTATCTCA TCGCACAAC	1440
GGATGCAATC CCTGAGTTGG AGAGTTTGAT TAGCGCAGCG ATTGCTCCTG AAGCTCCTCA	1500
TGTGATTACA GATGGGGGAA TTATCCGGAC TGGATTTGAT GAGACTTTAG ACAAGTATCG	1560
TTGCGTTCTC AGAGAAGGGA CTAGCTGGAT TGCTGAGATT GAGGCTAAGG AGCGAGAAAA	1620
CTCTGGTATC AGCACGCTCA AGATTGACTA CAATAAAAAG GATGGCTACT ATTTTCATGT	1680
GACCAATTCG CAACTAGGAA ATGTGCCAGC TCACTTTTTC CGCAAGGCGA CGCTGAAAAA	1740
CTCAGAACGC TTTGGAACCG AAGAATTAGC CCGTATCGAG GGAGATATGC TTGAGGCGCG	1800
TGAGAAGTCA GCCAACCTCG AATACGAAAT ATTTATGCGC ATTCGTGAAG AGGTCGGCAA	1860
GTACATCCAG CGTTTACAAG CTCTAGCCCA AGGAATTGCG ACGGTTGATG TCTTACAGAG	1920
TCTGGCGGTT GTGGCTGAAA CCCAGCATTT GATTCGACCT GAGTTTGGTG ACGATTCA	1980
AATTGATATC CGGAAAGGC GCCATGCTGT CGTTGAAAAG GTTATGGGGG CTCAGACCTA	2040
TATTCCAAAT ACGATTGAGA TGGCAGAAGA TACCAGTATT CAACTGGTTA CAGGGCCAAA	2100

534

CATGAGTGGG AAGTCTACCT ATATGCGTCA GTTAGCCATG ACGGCGGTTA TGGCCCAGCT	2160
GGGTTCCTAT GTTCCTGCTG AAAGCGCCCA TTTACCGATT TTTGATGCGA TTTTACCCG	2220
TATCGGAGCA GCAGATGACT TGGTTTCGGG TCAGTCAACC TTTATGGTGG AGATGATGGA	2280
GGCCAATAAT GCCATTTCGC ATGCGACCAA GAACCTCTCTC ATTCTCTTTG ATGAATTGGG	2340
ACGTGGAAC T GCAACTTATG ACGGGATGGC TCTTGCTCAG TCCATCATCG AATATATCCA	2400
TGAGCACATC GGAGCTAAGA CCCTCTTTGC GACCCACTAC CATGAGTTGA CTAGTCTGGA	2460
GTCTAGTTTA CAACACTTGG TCAATGTCCA CGTGGCAACT TTGGAGCAGG ATGGGCAGGT	2520
CACCTTCCTT CACAAGATTG AACCGGGACC AGCTGATAAA TCtACGGTAT CCATGTTGCC	2580
AAGATTGCTG GCTTGCCAGC AGACCTTTTA GCAAGGGCGG ATAAGATTTT GACTCAGCTA	2640
GAGAATCAAG GAACAGAGAG TCCTCCTCCC ATGAGACAAA CTAGTGCTGT CACTGAACAG	2700
ATTTCACTCT TTGATAGGGC AGAAGAGCAT CCTATCCTAG CAGAATTAGC TAAACTGGAT	2760
GTGTATAATA TGACACCTAT GCAGGTTATG AATGTCTTAG TAGAGTTAAA ACAGAAACTA	2820
TAAAACCAAG ACTCACTAGT TAATCTAGCT GTATCAAGGA GACTTCTTTG ACAATTCTCC	2880
ACTTTTTTGC TAGAATAACA TCACACAAAC AGAATGAAAA GGAGCTGACG CATTGTCGCT	2940
CCCTTTTGTC TATTTTTTAA GGAGAAAGTA TGCTGATTCA GAAAATAAAA ACCTACAAGT	3000
GGCAGGCCCT GGCTTCGCTC CTGATGACAG GCTTGATGGT TGCTAGTTCA CTTCTGCAAC	3060
CGCGTTATCT GCAGGAAGTC TTAGGCGCCC TCCTTACTGG GAAATATGAA GCTATTTATA	3120
GTATCGGGGC TTGGTTGATT GGTGTGGCCG TAGTCGGTCT AGTTGCTGGT GGACTCAATG	3180
TTGTCCCTCGC AGCCTATATT GCCCAAGGAG TTTTCATCCGA CCTTCGGGAG GATGCCTTCC	3240
GTAAAATTCA AACCTTTTCT TATGCTGATA TTGAACAATT TAATGCGGGA AATCTAGTCG	3300
TTCGAATGAC AAATGATATC AACCAGATTC AGAACGTTGT CATGATGACC TTCCAAATTC	3360
TTTTTCAGACT TCCCCTCTTG TTCATCGGTT CGTTTATCCT AGCGGTTCAA ACCTTACCTT	3420
CTCTGTGGTG GGTGATTGTT CTCATGGTAG TCTTGATTTT TGGTTTGA CTGTCATGA	3480
TGGGAATGAT GGGGCCTCGT TTTGCCAAGT TTCAAACCC TCTTGAGCGC ATCAATGCCA	3540
TTGCCAAGGA AAATTTACGT GCGGTTCTGT TGGTCAAGTC CTTTGTCCAA GAAAAAGAGC	3600
AATTTGCTAA GTTTACAGAG GTCTCAGACG AGCTTCTTGG TCAAAACCTT TACATTGGTT	3660
ATGCCTTTTC AGTAGTGGAA CCCTTTATGA TGTGGTTGG TTACGGGGCG GTCTTCCTCT	3720
CTATTTGGCT GGTGCGGGA ATGGTTCAGT CGGATCCGTC TGTGTTGGT TCCATCGCTT	3780
CTTTTGTTAA TTACCTAAGC CAGATTATCT TTACCATTGT TATGGTTGGA TTTTGGGAA	3840
ATTCTGTCAG CCGTGCCATG ATTTCCATGC GTCGTATTCG AGAAATTCTT GACGCAGAGC	3900

535

CAGCTATGAC	CTTCAAGGAT	ATCCCAGATG	AAGAGTTGGT	TGGAAGTCTT	AGCTTTGAAA	3960
ATGTGACCTT	TACCTATCCA	ATGGACAAGG	AACCGATGCT	GAAAGATGTG	AGCTTTACTA	4020
TTGAACCTGG	TCAAATGGTT	GGTGTAGTTG	GAGCGACTGG	TGCAGGAAAAG	TCAACCTTGG	4080
CTCAATTGAT	TCCACGTCTC	TTTGATCCAC	AGGACGGGGC	CATTAAAATC	GGTGGCAAGG	4140
ATATTCGAGA	AGTGAGTGAA	GGAACCTTGC	GTAAAACAGT	TTCCATCGTT	CTCCAACGTG	4200
CCATTCTTTT	TAGTGGAACG	ATTGCAGATA	ACTTGAGACA	GGGAAGGGG	AATGCTACTC	4260
TATTTGAAAT	GGAGCGCGCA	GCCAATATTG	CCCAGGCTAG	TGAATTCATT	CATCGTATGG	4320
AGAAAACCTT	TGAAAGTCCA	GTGAAGAAC	GGGAACCAA	TTTCTCTGGT	GGACAAAAAC	4380
AAAGGATGTC	GATTGCGCGT	GGGATTGTCA	GCAATCCACG	TATTCTGATT	TTTGATGATT	4440
CGACCTCAGC	CTTGGATGCC	AAATCAGAGC	GCTTGGTGCA	AGAAGCTTTG	AATAAGGACT	4500
TGAAGGGGAC	GACAACCATT	ATTATTGCTC	AAAAAATTAG	CTCGGTTGTC	CATGCAGACA	4560
AGATCTTGGT	TCTAAATCAA	GGACGATTGA	TTGGTCAAGG	TACGCATGCA	GACTTGGTTG	4620
CCAACAATGC	CGTTTACCGT	GAAATCTATG	AAACACAGAA	ATGAAAGACA	AACTATAAGA	4680
AAAGTCAATA	GTTTTATCTA	AACTATTTCT	TATTTCAATT	TGATGATTTG	GCGATGATTT	4740
TAGAGCACGG	CAAAAAGCCC	TTGAAAAAGT	CCATTTTTC	AAAGGTAATC	CTGTGTTAAT	4800
TTCAGAAATT	ACATCACTTT	TTGTTCGTCA	AATGGCAGCT	CTTTTTTTAG	GATATAAAAC	4860
AGGGTTCGGA	TAAGTTTTTT	TGCAAGGTGG	ATGATGGCTA	CATTGTAATG	TTTTCTTGT	4920
TCTAATTAG	TCTTAAGATA	GGCCTTAAAA	GCAGGCGAAA	AGCGAGGGCA	TGCTTTGGCA	4980
GCTTGTATGA	GTACCTACCG	CAGATGAGGG	GAACTCCGTT	TGACCATTCT	TCCTGCTAAA	5040
TCAATCTGAT	CTGACTGATA	AATAGAAGAA	TCCAGTCCAG	CGAAAGCTTG	TAATTGAGCA	5100
GGATTATCAA	AGGCATGAAT	ATTTGGAATC	TCAGCTAAAA	TGACCGCCCC	TAAACGATCC	5160
CCAATCCCAG	TAACCGTCGT	GATGACCGAG	TTGAACTCAG	CCATCAAGTC	ATTGACACAT	5220
GTTTCCGCCT	TGTCATGAG	CCTCTTGTA	TGTTTGATGT	TTTCATTACA	CGAGATAAAA	5280
CGTCTATGCG	TTATCAAACT	CATTACCAAT	TAAAACAAAA	AGCTGTGGTT	AGATCCTTTC	5340
GGAAATTGTC	AAGCGATTGG	AGGAAATGAA	CTAATCCACA	GCGGCTTATT	CCAAGTATAC	5400
CACTTGGGCT	TTGGCAGTAG	CTAACTGCGC	TAAATATAAT	ATAAGGAGGA	GTAAAATGAA	5460
GACAGTCAA	TTTTTTTGGC	ATTATTTTAA	GGTCTACAAG	TTCTCATTTG	TAGTTGTCAT	5520
CCTGATGATT	GTTCTGGCGA	CTTTTGCCCA	AGCCCTCTTT	CCAGTCTTTT	CTGGACAAGC	5580
GGTGACGCAG	CTAGCCAATT	TAGTTCAAGC	TTATCAAAAT	GGCAATCCAG	AACTTGTATG	5640

536

GCAAAGCCTA TCAGGAATCA TGGTCAATCT TGGCCTGCTG GTTTTGGTTC TATTTATCTC	5700
TAGTGTAATA TACATGTGTC TCATGACGCG CGTGATTGCA GAATCGACCA ACGAGATGCG	5760
CAAAGGCCCTC TTTGGTAAGC TTGCTCAGTT GACGGTTTCT TTCTTTGACC GTCGACAAGA	5820
TGGCGATATC CTGTCTCATT TTACCAGTGA TTTGGATAAT ATCCTCCAAG CCTTTAACGA	5880
AAGCTTGATT CAGGTCATGA GCAATATTGT TTTATACATT GGTCTGATTG TTGTCATGTT	5940
TTCGAGAAAT GTGACGCTGG CTCTCATCAC CATTGCCAGC ACCCCATTGG CTTTCCTTAT	6000
GCTGATTTTC ATCGTGAAAA TGGCACGCAA ATACACCAAC CTCCAGCAGA AAGAGGTAGG	6060
GAAGCTCAAC GCCTATATGG ATGAGAGCAT CTCAGGCCAA AAAGCCGTGA TTGTGCAAGG	6120
AATTCAGAG GATATGATGG CAGGATTTCT TGAACAAAAT GAGCGCGTGC GCAAGGCAAC	6180
CTTTAAAGGA AGAATGTTCT CAGGAATTCT TTTCCCTGTC ATGAATGGGA TGAGCCTGAT	6240
TAATACAGCC ATCGTCATCT TTGCTGGTTC GGCTGTACTT TTGAATGATA AGTCTATTGA	6300
AACAAGTACA GCCCTAGGTT TGATTGTTAT GTTTGCACAA TTTTCACAGC AGTACTACCA	6360
GCCTATTATC CAAGTTGCAG CGAGTTGGGG AAGCCTTCAG TTGGCCTTTA CTGGAGCTGA	6420
ACGAATTGAG GAAATGTTTG ATGCAGAGGA GGAATCCGA CCTGAAAAGG CTCCAACCTT	6480
CACTAAGTTG CAAGAAAGTG TTGAAATCAG TCATATCGTT TTTTCATACT TGCCTGATAA	6540
ACCTATTTTG AAAGATGTCA GCATTTCTGC CCCTAAAGGC CAGATGACAG CAGTTGTTGG	6600
GCCGACAGGT TCAGGAAAAA CGACTATTAT GAACCTCATC AATCGCTTTT ATGATGTTGA	6660
TGCTGGTGGT ATTTATTTTG ATGGTAAAGA CATTCGTGGC TATGACTTAG ATAGTCTTAG	6720
AAGCAAGGTG GGAATTGTAT TGCAAGATTC GGTCTTGTTC AGCGGAACGA TTAGAGACAA	6780
TATCCGATTT GGTGTGCCAG ATGCTAGTCA GGAATGGTT GAGGTAGCAG CAAAAGCAAC	6840
CCACATTCAC GACTATATCG AAAGTTTGCC TGATAAGTAC GATACTCTTA TTGATGATGA	6900
CCAGAGCATC TTTTCAACAG GGCAGAAGCA ATTGATTTCA ATCGCTCGAA CCCTGATGAC	6960
AGATCCAGAA GTTCTCATTC TCGATGAAGC AACTTCAAAC GTAGATACGG TGACAGAAAG	7020
CAAGATTCAG CATGCCATGG AGGTGGTTGT AGCAGGTAGA ACTAGTTTCG TCATTGCCCA	7080
CCGCTTGAAA ACCATTCTCA ATGCAGATCA GATTATTGTC CTTAAAGATG GAGAAGTCAT	7140
TGAACGTGGT AACCACCATG AACTTTTGAA GCTAGGTGGC TTTTATTCAG AACTCTATCA	7200
CAATCAATTT GTTTTCGAAT AAGAAAGAAG TTGTCCTATG TGGGCAGCTT TTTCTTGTC	7260
ATAAAAAATG TTTATCACAG CCTTAAAAAA AACATATTAG ACGAAAGTCA TTTTGAGTGA	7320
TATGATAGGA CTATCGTTAG CATTCGAAAG GAGAGGCATC ATGGCTAGAA CGGTTGTAGG	7380
AGTTGCTGCA AATCTATGTC CCGTAGACGC AGAAGGCAAA ATCATTTCATT CATCTGTATC	7440

537

TTGTAGATTC GCAGAGATCA TTCGTCAAGT CGGTGGTCTC CCTTTAGTCA TTCCTGTTGG	7500
TGATGAGTCA GTTGTACGTG ATTATGTGGA AATGATTGAC AACTCATT TGCACGAGAG	7560
CCAAAATGTT CATCCTCAGT TTTATGGAGA GAAAAAGACC GTCGAGAGCG ATGATTACAA	7620
TCTGGTCCGT GACGAATTTG AATTGGCACT CTTGAAGGAA GCGCTTCGTC AGAATAAACC	7680
AATTATGGCA ATCTGTCGCG GTGTCCAAC TGTCAATGTT GCCTTTGGTG GAACCCTCAA	7740
TCAAGAAATC GAAGGTCAGG	7760

(2) INFORMATION FOR SEQ ID NO: 64:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2723 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

GAGGTTTTAA TTCACTTACC TCTSCCGTAT CTTTATTTAA AATGAATTCT TTTACGGTTG	60
TATTTCTTGC AAAATCTTTT ACAACAATCT TAATGTTTAG TGTCTTGTCT ATTATTTGTT	120
TAATATCATT AAATGATGTA TATCTTTTC CATTTATATA AATATGTTGT TCTTGAATCT	180
CACCATCGAA TCCATTATTT CTTTATCAT TGATGTTAAA GACTACAGAT TTTCCATCAG	240
CATATTCGAT ACTAGTATTT CCCTTAGGAT CAATGTTTAC TTCGGGTTTA ACATTATCAT	300
ATAAAACTG ATAGTGGACT CCAACTGCTT TAGCATTCAA ATCGCTATAG CCAGTTTGAA	360
GATAAACATT TCCATCCATA TCTGTTACCT TATCTGGAAA TCCGTTTGCT TTATAGTCTT	420
TCATTCCCA GTCCATGATG TCACCGTCTT TAACATTCAG CTTAATATTA AAATCTCTAG	480
TGTTATCAAT GTGTAAATCT CCGTAGATTA AATAATTATC TACAACCGAT TCATTAACTC	540
TCAATCCCA GTTAAAACCA CCCTTATCAG AAATCTTACC TCTTAAATAA AATTCTGGAT	600
TTCGTACATA AATTTTATTA GATTTAGATG GATTAAAGTA GTTCTTATCC ATTGAAAGGT	660
TTACTGGTTT GGTATCAATA AATAACATGG AGCCATCTTC TTTTATAGCT TCTACATTGA	720
ACTTATCCTC TCCAGTGTAT TCTTTATCAT CCTTACCAA TAATACAAGT TTAGAAGAAT	780
CTGTCACAAG ATTTCCGTCT TTATCGATAG CTTCCCTTT ATCGTTCATT TTAAATGTAA	840
ACACTTGATA CCTTATAATG TTAAAGCCGT CCAAAGCCGA CATTAATACA GATTGGGTAC	900
TTCTTCCATC TTCAACATTT CTAATATCAG CATAAATTGT TGTTTCTGAA AGGCTCTTA	960
GATTAGGATT GGCCTTTTGT ATTTTGTGTA TATCTTCCTT GCTATAGACT CCATTCCTT	1020

538

CTAACATATC CGTTTTTCCA GGATTATAGG TAGTCACTTT TAGTGCATAG CCTTTTCTTA	1080
GAATGATATT ATCCTTTAAC AGATATTGTT GTTTTTCTGA ATCAGAATAG ATTTTACCAG	1140
ATTCCATTTT AGTTAAATTG TCTGGTTTGT TTTTGTAAAG ATCTCCTTCC CCTAATTCTA	1200
TGACATTCCC ATAAC TTGAT ACATAGGGAT ATTCTGATTT AGTTTCCTTA ATTTTTCAG	1260
GCATTCTAAT TTTAATTTCA GCTTTTTTCT GATCATTATC TTTAACAAAT AATCTCATAT	1320
CTCCTGCAAA AGCTAATCCA TCCACAATAT CATTAAATTT AGCGTATAGA TCAAATGTCA	1380
TCGTTTTTGA GTGGAAATCA TACTTGGTCG CTTTGATTTT TATAGATTTA TAGTTATTCC	1440
CATAATATAC CTTGGCATTT TTAGAAACAT TACTTATCTT TCCAAGAATT TCAAAGTGTC	1500
CATCTTTAGA CGGACTTAGA ACACCATAAA TTTTGTATTT GATTTCGTCA AGTTTCTCAG	1560
TTTCATATTC TAGATCAGTC CCATCATCGT AGGCTATTAT ATTTCTTTA TCATCGTATT	1620
TATAATCGTA TTCCTCCATT CTCTTACCAG TTTCACTTGT AAAATCATCA ACTTCTCTAA	1680
ATTTCTTTTT AATGAGTTTC TTTAAGTCTT TATTTTCAA GTCTCTAATT GTTGAAATAT	1740
TTCTATCAAT AGTAAACTA GATTTTCTT TAATAGACTC TTCATTTCT TGATGATGAT	1800
GTTCTACCCC AGTTGTATCT TTTTTTAGAC TACCTCTTT TCCATTTCTT AAATTTTAA	1860
ATTTAGATTC TGCAATCTCG CCAAGCTTTT GATATTTAGA TGAATCTTGA TCAGGATCTA	1920
CTAGATAATA GGAAATCATC CCCTTTTCAT CAGCCTGATT AGCAAATTTA ATTCTATGAA	1980
TCTTTGTGAA ATTGCTAGAA CCATCTAATG CAATGACTTC AATGATTTTT CCCCTTAAAT	2040
CTCCCGCACC TTTAATTTCA TAAATGGTAT TTCCGTCTTT ATCAAGTTTT CTATTTCTTC	2100
CTTGACCTC ACCTGCGTAA GTTACTTCAA GATTTTTTTC AACCTCTCCA TCTTCATTAA	2160
CAAGAGCGGC GCCAGCATAC CAACTTTCGT TCGCAATCTC GTCAAATTTT TCAGGATGTT	2220
CTTTTGTATC TCTCGCAAAT AGCGTTTCAT TCTTATACTG ATCTTTTACC TTATGATAAG	2280
TATCCTTTGT AATCAACTTA ATTTTTCAG GATTTGAAAA ATCAACCGAA ACAATCTTAG	2340
GGGCGGTGTT ATCAATTTTT ACAGGAATAT AGGAAACCTG CCATGGGTAA TCTTTAGTTA	2400
ATCTATATTT AAATTTATAG AAATATTGAC CTTCCGCAAT CGGTTCAAAT TGACCTCTTA	2460
TCTTAGTAGC AGGATCTTGA TTATCCTTAC TTTCTGGTGC ATTTCTTCT CTACCTCTAG	2520
GATTATAGAT GAGTCCATCC CACTTCAAGT CACCCCAAAC TTTTAGTTTA GATGATTGA	2580
TTCCCTTGC ATCATTGCTT TTAGAATTTA AAATTCCTCT AATAAAGTGT TCTCTCGAAA	2640
TGACTTTTAA GTCTCTTTGA TTTCTCCCT CTTTATTTGT ATTTACTATT GAAATCAATC	2700
CTTCTTCTGC ACTTCTTAAT ACA	2723

(2) INFORMATION FOR SEQ ID NO: 65:

539

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 11831 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

AAAAAAGTGG GAATGACTCA AATCTTCACT GAAGCTGGCG AATTGATCCC TGTAACAGTT	60
ATTGAAGCAA CTCCAAACGT TGTTCTTCAA GTTAAACTG TTGAAACAGA CGGATACAAC	120
GCTATCCAAG TTGGTTTCGA TGACAAACGC GAAGTATTGA GCAACAAACC TGCTAAAGGA	180
CATGTAGCGA AAGCTAACAC GGCTCCTAAG CGCTTCATTC GTGAATTCAA AAACGTTGAA	240
GGCTTGGAAG TTGGTGCTGA AATTACAGTT GAAACATTCG CAGCTGGAGA CGTTGTTGAC	300
GTAACGGGTA CTTCTAAAGG TAAAGGTTTC CAAGGTGTTA TCAAACGCCA CGGACAATCA	360
CGTGGACCAA TGGCTCACGG TTCTCGTTAC CACCGTCGTC CAGGTTCCTAT GGGGCCTGTT	420
GCACCTAACC GCGTATTCAA AGGTAAAAAC CTTGCAGGAC GTATGGGTGG CGACCGCGTA	480
ACAATTCAAA ACCTGAAGT TGTACAAGTT GTTCCAGAAA AGAACGTTAT CCTTATCAAA	540
GGTAACGTAC CAGGTGCTAA GAAATCTCTT ATCACTATCA AATCAGCAGT TAAAGCTGGT	600
AAATAATAAA GAAAGGGGAA ATCAGTCACA ATGGCAAACG TAACATTATT TGACCAAAC	660
GGTAAAGAAG CTGGCCAAGT TGTCTTAGC GATGCAGTAT TTGGTATCGA ACCAAATGAA	720
TCAGTTGTGT TTGATGTAAT CATCAGCCAA CGCGCAAGCC TTCGTCAAGG AACACACGCT	780
GTTAAAAACC GCTCTGCAGT ATCAGGTGGT GGACGCAAAC CATGGCGTCA AAAAGGAACT	840
GGACGTGCTC GTCAAGGTTT TATCCGCTCA CCACAATGGC GTGGTGGTGG TGTGTCTTC	900
GGACCAACTC CACGTTTATA CGGCTACAAA CTTCCACAAA AAGTTCGTCG CCTAGCTCTT	960
AAATCAGTTT ACTCTGAAAA AGTTGCTGAA AACAAATTCG TAGCTGTAGA CGCTCTTTCA	1020
TTTACAGCTC CAAAACTGC TGAATTTGCA AAAGTTCTTG CAGCATTGAG CATCGATTCT	1080
AAAGTTCTTG TTATCCTTGA AGAAGGAAAT GAATTCGCAG CTCTTTCAGC TCGTAACCTT	1140
CCAAACGTGA AAGTTGCAAC TGCTACAAC	1200
GCAAGTGTTT TTGACATCGC AAATAGCGAC	1260
AAACTTCTTG TCACACAAGC AGCTATCTCT AAAATCGAGG AGGTTCTTGC ATAATGAATT	1320
TGTATGATGT TATCAAAAAA CCTGTCATCA CTGAAAGCTC AATGGCTCAA CTTGAAGCAG	1380
GAAAATATGT ATTTGAAGTT GACACTCGTG CACACAACT TTTGATCAAG CAAGCTGTTG	1440
AAGCTGCTTT CGAAGGTGTT AAAGTTGCCA ATGTTAACAC AATCAACGTA AAACCAAAAG	

540						
CTAAACGTGT	TGGACGTTAC	ACTGGTTTTA	CTAACAAAAC	TAAAAAAGCT	ATCATCACAC	1500
TTACAGCTGA	TTCTAAAGCA	ATCGAGTTGT	TTGCTGCTGA	AGCTGAATAA	TCTAAGGAGG	1560
AAATATCGTG	GGAATTCGTG	TTTATAAACC	AACAACAAAC	GGTCGCCGTA	ATATGACTTC	1620
TTTGGATTTC	GCTGAAATCA	CAACAAGCAC	TCCTGAAAAA	TCATTGCTTG	TTGCATTGAA	1680
GAGCAAGGCT	GGTCGTAACA	ACAACGGTCG	TATCACAGTT	CGTCACCAAG	GTGGTGGACA	1740
CAAACGTTTC	TACCGTTTGG	TTGACTTCAA	ACGTAATAAA	GACAACGTTG	AAGCAGTTGT	1800
TAAAACAATC	GAGTACGATC	CAAACCGTTC	TGCAAACATC	GCTCTTGCTAC	ACTACACTGA	1860
CGGTGTGAAA	GCATACATCA	TCGCTCCAAA	AGGTCTTGAA	GTAGGTCAAC	GTATCGTTTC	1920
AGGTCCAGAA	GCAGATATCA	AAGTCGGAAA	CGCTCTTCCA	CTTGCTAACA	TCCCAGTTGG	1980
TACTTTGATT	CACAACATCG	AGTTGAAACC	AGGTCGTGGT	GGTGAATTGG	TACGTGCTGC	2040
TGGTGCACTC	GCTCAAGTAT	TGGGTTCCTGA	AGGTAAATAT	GTTCTTGTTT	GTCTTCAATC	2100
AGGTGAAGTT	CGTATGATTC	TTGGAACCTG	CCGTGCTACA	GTTGGTGTTG	TCGGAAACGA	2160
ACAACATGGA	CTTGTAACC	TTGGTAAAGC	AGGACGTAGC	CGTTGGAAAG	GTATCCGCCC	2220
AACAGTTCGT	GTTTCTGTAA	TGAACCCTAA	CGATCACCCA	CACGGTGGTG	GTGAAGGTAA	2280
AGCACCAGTT	GGTCGTAAAG	CACCATCTAC	TCCATGGGGC	AAACCTGCCT	TTGGTCTTAA	2340
AACTCGTAAC	AAGAAAGCGA	AATCTGACAA	ACTTATCGTT	CGTCGTCGCA	ACGAGAAATA	2400
ATATTAAACT	AGTCGCTTAA	GCAACTAGTA	AATCCGCCAG	CTCGGTAGCG	CTCCATAGGA	2460
GTGCAAGCCG	CTGTGGTACA	ACATTTAAAG	GAGAAAATAT	AAAAATGGGA	CGCAGTCTTA	2520
AAAAAGGACC	TTTCGTCGAT	GAGCATTTGA	TGAAAAAAGT	TGAAGCTCAA	GCTAACGACG	2580
AAAAGAAAAA	AGTTATTAAA	ACTTGGTCAC	GTCGTTCAAC	GATCTTCCCA	AGTTTCATTG	2640
GTTACACTAT	TGCAGTTTAT	GACGGACGTA	AACACGTACC	TGTTTACATC	CAAGAAGACA	2700
TGGTAGGCCA	CAAACCTGGT	GAATTTGCAC	CAACTCGTAC	TTACAAAGGT	CACGCTGCAG	2760
ACGACAAGAA	AACACGTAGA	AAATAAGGAG	AACATAAATG	GCAGAAATTA	CTTCAGCTAA	2820
AGCAATGGCT	CGTACAGTAC	GTGTTTCACC	TCGTAAATCA	CGTCTTGTTT	TTGATAACAT	2880
CCGTGGTAAA	AGCGTAGCCG	ATGCAATCGC	AATCTTGACA	TTCACCTCAA	ACAAAGCTGC	2940
TGAAATCATC	TTGAAAGTTT	TGAACTCAGC	TGTAGCTAAC	GCTGAAAACA	ACTTTGGTTT	3000
GGATAAAGCT	AACTTGCTAG	TATCTGAAGC	ATTCGCAAAC	GAAGGACCAA	CTATGAAACG	3060
TTTCCGTCCA	CGTGCGAAAAG	GTTTCTGCTC	ACCAATCAAC	AAACGTACAG	CTCACATCAC	3120
TGTAGCTGTT	GCAGAAAAAT	AAGGAGGTAA	AATCGTGGGT	CAAAAAGTAC	ATCCAATTGG	3180
TATGCGTGTC	GGCATCATCC	GTGATTGGGA	TGCCAAATGG	TATGCTGAAA	AAGAATACGC	3240

541

GGATTACCTT CATGAAGATC TTGCAATCCG TAAATTCGTT CAAAAAGAAC TTGCTGACGC	3300
AGCAGTTTCA ACTATTGAAA TCGAACGCGC AGTAAACAAA GTTAACGTTT CACTTCACAC	3360
TGCTAAACCA GGTATGGTTA TCGGTAAAGG TGGTGCTAAC GTTGATGCac TCCGTGCAAA	3420
ACTTAACAAA TTGACTGGAA AACAAGTACA CATCAACATC ATCGAAATCA AACAACTGA	3480
TTTGGATGCT CACCTTGTAG GTGAAGGAAT TGCTCGTCAA TTGGAGCAAC GTGTTGCTTT	3540
CCGTCGTGCA CAAAAACAAG CAATCCAACG TGCAATGCGT GCTGGAGCTA AAGGAATCAA	3600
AACTCAAGTA TCAGGTCGTT TGAACGGTGC AGATATCGCC CGTGCTGAAG GATACTCTGA	3660
AGGAACTGTT CCGCTTCACA CACTTCGTGC AGATATCGAT TACGCTTGGG AAGAAGCAGA	3720
TACTACATAC GGTAAACTTG GTGTTAAAGT ATGGATCTAC CGTGGTGAAG TTCTTCCAGC	3780
TCGTAAAAAC ACTAAAGGAG GTAAATAACC AATGTTAGTA CCTAAACGTG TTAAACACCG	3840
TCGTGAGTTC CGTGGAAAAA TGCGCGGTGA AGCAAAAGGTT GGAAAAGAAG TAGCATTCGG	3900
TGAATACGGT CTTCAAGCTA CAACTAGCCA CTGGATCACT AACCGCCAAA TCGAAGCTGC	3960
TCGTATCGCC ATGACTCGTT ACATGAAACG TGGTGGTAAA GTTTGGATTA AAATCTTCCC	4020
ACACAAATCA TAACTGCTA AAGCTATCGG TGTGCGTATG GGATCTGGTA AAGGGGCACC	4080
TGAAGGTTGG GTAGCACCAG TTAAACGTGG TAAAGTGATG TTCGAAATCG CTGGTGTATC	4140
TGAAGAGATT GCACGTGAAG CGCTTCGACT TGCTAGCCAC AAATTGCCAG TTAAATGTAA	4200
ATTCGTAAAA CGTGAAGCAG AATAAGGAGA AGGCATGAAA CTTAATGAAG TAAAAGAATT	4260
TGTTAAAGAA CTTCTGGTTC TTTCTCAAGA AGAACTCGCG AAGCGCGAAA ACGAATTGAA	4320
AAAAGAATTG TTTGAAC TTC GTTTCCAAGC TGCTACTGGT CAATTGGAAC AACAGCTCG	4380
CTTGAAAGAA GTTAAAAAAC AAATCGCTCG CATCAAAACA GTTCAATCTG AAGCGAAATA	4440
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TGTTGTATCT GACAAAATGG ACAAGACAAT CACAGTTGTA GTTGAAACAA AACGTAACCA	4560
CCGAGTCTAT GGTAAACGTA TTAATACTC TAAAAAATAC AAAGCTCATG ATGAAAACAA	4620
TGTTGCCAAA GAAGGCGATA TCGTACGTAT CATGGAAACT CGCCCGCTTT CAGCTACAAA	4680
ACGTTTCCGT CTTGTAGAAG TTGTTGAAGA AGCGGTCATC ATCTAATCAA ACCTGAAAGG	4740
AGAAAACCTGA AATGATTCAA ACAGAACTC GTTTGAAAGT CGCAGACAAC AGCGGTGCTC	4800
GCGAAATCTT GACTATCAAA GTTCTTGGTG GTTCAGGACG TAAATTTGCA AACATCGGTG	4860
ATGTTATCGT GGCATCTGTA AAACAAGCTA CTCCTGGTGG TGCGGTTAAA AAAGGTGACG	4920
TTGTTAAAGC AGTTATCGTT CGTACTAAAT CAGGTGCTCG TCGTGCTGAT GGTTCATACA	4980

542

TCAAATTTGA	CGAAAACGCA	GCAGTTATCA	TCCGTGAAGA	CAAACTCCT	CGCGGAACAC	5040
GTATCTTTGG	CCCAGTTGCA	CGTGAATTGC	GTGAAGGTGG	CTTCATGAAG	ATCGTGTAC	5100
TTGCTCCAGA	AGTACTTTAA	TTTTTAGGAA	CAAAGTAGTC	CCCTAGCTTC	AAGCTAGGGT	5160
GCCCTTATGG	GCGTAAGAAA	AATCAAGGAG	AAACCTAATG	TTTGTAAGAA	AAGGCGACAA	5220
AGTTCGCGTA	ATCGCTGGTA	AAGATAAGGG	AACAGAAGCT	GTTGTCCTTA	CTGCCCTTCC	5280
AAAAGTAAAC	AAAGTTATCG	TTGAAGGTGT	TAACATTGTT	AAGAAACACC	AACGTCCAAC	5340
TAACGAGCTT	CCTCAAGGTG	GTATCATCGA	GAAAGAAGCA	GCTATCCACG	TATCAAACGT	5400
TCAAGTTTTG	GACAAAAATG	GTGTAGCTGG	TCGTGTTGGA	TACAAATTTG	TAGACGGTAA	5460
AAAAGTTCGC	TACAACAAAA	AATCAGGCGA	AGTGCTTGAT	TAATCACGAA	GGAAAGGAGA	5520
AGTATAATGG	CAAATCGTTT	AAAAGAAAAA	TATCTTAATG	AAGTAGTTCC	TGCTTTGACA	5580
GAACAATTCA	ACTACTCATC	AGTGATGGCT	GTGCCTAAAG	TAGATAAGAT	TGTTTTGAAC	5640
ATGGGTGTTG	GTGAAGCTGT	ATCAAACGCT	AAAAGCCTTG	AAAAAGCTGC	TGAAGAATTG	5700
GCACTTATCT	CAGGTCAAAA	ACCACTTATC	ACTAAAGCTA	AAAAATCAAT	CGCCGGCTTC	5760
CGTCTTCGTG	AAGGTGTTGC	GATCGGTGCA	AAAGTTACCC	TTCGTGGTGA	ACGTATGTAC	5820
GAATCTTTGG	ATAAATTGGT	ATCAGTTTCA	CTTCCACGTG	TACGTGACTT	CCACGGGTGC	5880
CCAACAAAAT	CATTTGATGG	ACGCGGGAAC	TACACACTTG	GTGTGAAAGA	ACAATTAATC	5940
TTCCAGAAA	TCAACTTCGA	TGACGTTGAC	AAAACCTCGT	GTCTTGACAT	CGTTATCGTA	6000
ACAACTGCTA	ACACTGACGA	AGAGTCACGT	GCATTGCTTA	CAGGCCTTGG	AATGCCTTTT	6060
GCAAAATAAT	ATAGGAGGTA	AATCTAATGG	CTAAAAAATC	AATGGTAGCT	AGAGAGGCTA	6120
AACGCCAAAA	AATTGTTGAC	CGTTATGCTG	AAAAACGTGC	TGCATTAAAG	GCGGCAGGGG	6180
ACTACGAAGG	TTTATCTAAA	TTACCTCGCA	ACGCCCTCACC	GAATCGTTTA	CATAATCGTT	6240
GTAGGGTTAC	GGGGCGCCCA	CATTCAAGTTT	ACCGCAAATT	TGGTCTGAGT	CGTATCGCTT	6300
TTCCGGAAC	TGCGCATAAA	GGTCAAATTC	CTGGTGTAAC	AAAAGCATCT	TGGTAATTTA	6360
AGATATCAAG	AGCGTCAAAA	CTCCAAGTAA	AAATAGGAAA	CTTGACGAAG	AACTAAAGT	6420
TTCTAGGAAA	GTTTATCTTT	TTACACACAGA	GTTTAGCCCG	GGTTCAATTG	GGCTTGCCAA	6480
TTTGAACACG	AGCTACAGCT	TTGGCAAAAA	AGACCAATTT	GCTTTGGAGC	ATTGCTTCTG	6540
CATTAAATTG	TCTATTTTGG	CTCGTGCTGT	TACGCTCTTT	GTATCATGTA	TTAACTAGCA	6600
AGTGCAACTT	GCAAACTACT	AGTAAGAGGA	GAAAAACAAA	ATGGTTATGA	CTGACCCAAT	6660
CGCAGACTTC	CTAACTCGTA	TTCGTAATGC	TAACCAAGCT	AAACACGAAG	TACTTGAAGT	6720
ACCTGCATCA	AACATCAAAA	AAGGGATTGC	TGAAATCCTT	AAACGCGAAG	GTTTTGTAAA	6780

543

AAACGTTGAA ATCATTGAAG ATGACAAACA AGGCGTCATC CGTGTATTTC TTAAATACGG	6840
ACCAAATGGT GAGAAAGTTA TCTAACTT GAAACGTGTT TCTAAACCAG GACTTCGTGT	6900
CTACAAAAAA CGTGAAGACC TTCCAAAAGT TCTTAACGGA CTTGGAATTG CCATCCTTTC	6960
AACTTCTGAA GGTTCGCTTA CTGATAAAGA AGCACGCCAA AAGAATGTTG GTGGTGAGGT	7020
TATCGCTTAC GTTTGGTAAA ATCAAGATAC AAAGCTCGTA AAGAACAAAG CAAAATTAGG	7080
AAGTTGGAGA AGTTTGTTTA CAAACAAGCC AACTTATCTA TTTTGCACAG TTCTTAGAGC	7140
GTGTTCAAGT CAGCTCTTGA ACTAAATAAG TATCTGAACC CCGTGAAAAC TGGCCGTTC	7200
GGCCTGACAA TTTAACAGGA GAAAATAAAC ATGTCACGTA TTGGTAATAA AGTTATCGTG	7260
TTGCCTGCTG GTGTTGAACT CGCTAACAAAT GACAACGTTG TAACTGTAAA AGGATCTAAA	7320
GGAGAACTTA CTCGTGAGTT CTCAAAGAT ATTGAAATCC GTGTGGAAGG TACTGAAATA	7380
ACTCTTCACC GTCCAAACGA TTCAAAGAA ATGAAAATA TCCACGGAAC TACTCGTGCC	7440
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GGGGTTGGTT ACCGTGCACA GCTTCAAGGA TCTAAACTTG TTTTGGCTGT TGGTAAATCT	7560
CATCCAGACG AAGTTGAAGC TCCAGAAGGA ATTACTTTTG AACTTCCAAA CCCAACAACA	7620
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CTTCGTTTAC CAGAACCATA TAAAGGTAAA GGTATCCGTT ACGTTGGTGA ATTCGTTTCG	7740
CGTAAAGAAG GTAAAACAGG TAAATAATGT TGAGTGGTTG ATCATCAACC ACCAACCTAT	7800
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AACCAGATAA AAACAACTC CGCCAAAAAC GCCACCGTCG CGTTCGCGGA AACTCTCTG	7920
GAAGTGTGA TCGCCACGT TTGAACGTAT TCCGTTCTAA TACAGGCATC TACGCTCAAG	7980
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CAAAGGAAC TAAAACTGAA CAAGCCGTTG CTGTCGGTAA ACTCGTTGCA GAACGTGCPA	8100
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TGAAAGCTTT GGCTGATGCA GCTCGTGAAA ACGGATTGAA ATTCTAATAG GAGGACACTA	8220
GAAAATGGCA TTTAAAGACA ATGCAGTTGA ATTAGAAGAA CGCGTAGTTG CTGTCAACCG	8280
TGTTACAAAA GTTGTTAAAG GTGGACGTCG TCTTCGTTTC GCAGCTCTTG TTGTTGTTGG	8340
TGACCACAAT GTCGCGTAG GATTTGGTAC TGGTAAAGCT CAAGAAGTTC CAGAAGCAAT	8400
CCGTAAAGCA GTAGATGATG CTAAGAAAAA CTTGATCGAA GTTCCTATGG TTGGAACAAC	8460
AATCCACAC GAAGTTCTTT CAGAATTCGG TGGAGCTAAA GTATTGTTGA AACCTGCTGT	8520

544

AGAAGGTTCT	GGAGTTGCCG	CTGGTGGTGC	AGTTCGTGCC	GTTGTGGAAT	TGGCAGGTGT	8580
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TGTTGAAGGT	TTGAAACAAT	TGAAACGCGC	TGAAGAAATT	GCTGCCCTTC	GTGGTATTTT	8700
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AGTCTCCAAT	CGGACGCATT	CCATCACAAC	GTAAACTGT	TGTAGCACTT	GGAAGTGGCA	8820
AATTGAACAG	CTCTGTTATT	AAAGAAGATA	ACGCTGCTAT	CCGTGGTATG	ATCACAGCAG	8880
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ACCATCCCCT	AAAAGTAGAT	ATAGTCATCT	ATGATGACAT	CGTATAGGCG	AGTTGATGGG	9000
GGAGACAACC	TTTTCTCCCT	TATCGGCGCT	AGCATTTTAC	AAAAGAGGAG	AAAATAAAAA	9060
TGAAACTTCA	TGAATTGAAA	CCTGCAGAAG	GTTCTCGTAA	AGTACGTAAC	CGCGTTGGTC	9120
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GATTATCCTT	CTTAAACATG	TTGAGCTTGG	TGTCGGGGAA	TGCCCTAAAA	AACTTTTCGA	9720
TTTTTGCCCT	AGGAGTTAGT	CCCTATATCA	CCGCTTCTAT	TGTTGTCCAA	CTCTTGCAAA	9780
TGGATATTTT	ACCCAAGTTT	GTAGAGTGGG	GTAACAAGG	GGAAGTAGGT	CGAAGAAAAT	9840
TGAATCAAGC	TACTCGTTAT	ATTGCTCTAG	TTCTCGCTTT	TGTGCAATCT	ATCGGGATTA	9900
CAGCTGGTTT	TAATACCTTG	GCTGGAGCTC	AATTGATTAA	AACTGCTTTA	ACTCCACAAG	9960
TTTTTCTGAC	GATTGGTATC	ATCTTAACAG	CTGGTAGTAT	GATTGTCACT	TGGTTGGGTG	10020
AGCAAATTAC	AGATAAGGGA	TACGGAAACG	GTGTTTCCAT	GATTATCTTT	GCCGGGATTG	10080
TTTCCTCAAT	TCCAGAGATG	ATTCAGGGCA	TCTATGTGGA	CTACTTTGTG	AACGTCCCAA	10140
GTAGCCGTAT	CACTTCATCT	ATCATTTTCG	TAATCATTTT	GATTATTACT	GTATTGTTGA	10200
TTATTTACTT	TACAACCTAT	GTCAACAAG	CAGAATACAA	AATTCCAATC	CAATATACTA	10260
AGGTTGCACA	AGGTGCTCCA	TCTAGCTCTT	ACCTTCCGTT	AAAAGTAAAC	CCTGCTGGAG	10320

545

TTATCCCTGT TATCTTTGCC AGTTCGATTA CTGCAGCCTG CGGCTATTCT TCAGTTTTTG	10380
AGTGCCACAG GTCATGATTG GGCTTGGGTA AGGGTAGCAC AAGAGATGTT GGCAACTACT	10440
TCTCCAAC TG GTATTGCCAT GTATGCTTTG TTGATTATTC TCTTTACATT CTTCTATACG	10500
TTTGTTACAGA TTAATCCTGA AAAAGCAGCA GAGAkCCTAC AAAAGAGTGG TGCCTATATC	10560
CATGGAGTTC GTCCTGGTAA AGGTACAGAA GAATATATGT CTAAACTTCT TCGTCGTCCT	10620
GCAACTGTTG GTTCCCTCTT CCTTGGTGTG ATTTCCATTT TACCGATTGC AGCTAAAGAT	10680
GTATTTGGTC TTTCTGATGT TGTGTCCTTT GGTGGAACAA GTCTCTTGAT CATTATCTCT	10740
ACAGGTATCG AAGGAATCAA GCAATTGGAA GGTTACCTAT TGAAACGTAA GTATGTTGGT	10800
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TTTAAACTCT GACATTTGTA AGAGTTGGAT CTCCCCTCTT CTATTTTGTG TTTAAATCGG	10920
GGTGAAAAGA CTTTTTGCTT CTATTTAAAA ATAAAATAAG GAGATCAAAT CATGAATCTT	10980
TTGATTATGG GCTTACCTGG TGCAGGTAAG GGAACCTAAG CAGCAAAAAT CGTAGAACAA	11040
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GAAATGGGTG TTCTTGCTAA GTCATATATT GACAAGGGTG AATTGGTTCC TGACGAAGTT	11160
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CTTGGCATTG AACTAGAAGG TGTATCAAT ATTGAAGTGA ACCCTGACAG CCTTTTGGAA	11340
CGTTTGAGTG GGGGTATCAT CCACCGCGTA ACTGGAGAAA CTTTCCACAA GGTCTTTAAC	11400
CCACCAGTTG ACTATAAAGA AGAAGATTAC TACCAACGTG AAGATGATAA GCCTGAGACA	11460
GTAAAACGTC GTTTGGATGT TAATATTGCT CAAGGAGAAC CAATCATTCG TCACTACCGT	11520
GCCAAAGGTT TGGTTCATGA CATCGAAGGT AATCAAGATA TCAATGATGT CTTCTCAGAT	11580
ATTGAAAAAG TATTGACAAA TTTGAAATAA AGCGTTTTTC ACACTTGCAA AAATCCGCTA	11640
CAAATGTTAT ACTGAGATAG TCTGACTTAT AATTGTTGTC TCTGTGTCTA GAGGCATCGA	11700
ATCGAAATTT ATGGAGGTGC TTTTGCCTGG CAAAAGACGA TGTGATTGAA GTTGAAGGCA	11760
AAGTAGTTGA TACAATGCCG AATGCAATGT TTACGGTTGA ACTTGAAAAT GGACATCAGA	11820
TTTTAGCAGG G	11831

(2) INFORMATION FOR SEQ ID NO: 66:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10726 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double

546

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

CCCGGCATTT GAAAGCTATT CGTGAAGGAT TTATGATGGC AATGCCTTTG ATTTTAGTCG	60
GCTCTTTATT TCTTATTCTA ATCAGTTGGC CTCAAGAGGC TTTTACAAAT TGGCTGAATA	120
GTGTTGGATT GCTAAGTATC TTGACAACTA TGAATCAGTC AACAGTAGCG ATTATCTCCT	180
TGGTCGCTTG TTTCGGTATT GCCTACAGGT TGTCGGAAGG ATATGGTACA GATGGTCCGT	240
CGGCAGGGAT CATAGCCTTA TCCAGTTTGG TATTGATGGC ACCTCGTTTT TCGAGTATGG	300
TTTATGATAA AAATGGGGAG CAGGTCAAGC AGTTATTTGG CGGCGCAATA CCATTTTCTA	360
GCCTGAATGC ATCTTCTTTG TTTATGGCGA TTAATTTGG ATTGGTTACA GCAGAGATTT	420
ATCGTATGTT TATCCAGCGC GGAATTACGA TAAAAATGCC AAGTGGTGTC CCAGATGTAG	480
TAAGTAAATC ATTTTCAGCT CTTTTATCTG GTTTTACTAC TTTTGTTTTG TGGGCTTTGG	540
TCTTAAAGG TCTTGAAGCG GCAGGAGTTG CAGGAGGTCT CAACGGACTC CTAGGTGCAA	600
TTGTTGGAAC ACCGCTTAAG TTAATTGCAG GAACGCTTCC AGGTATGATT CTATGTGTTA	660
TTGTAAACTC ATTCTTTTGG TTCTGTGGAG TTAATGGGGG ACAAGTTTAA AATGCTTTTG	720
TAGACCCAGT TTGGTTACAA TTTACTACAG AAAACCAAGA AGCTGTGGCT GCAGGACAAA	780
CACTCCAACA CATTATTACA TTACCGTTTA AAGATTTATT TGTATTTATT GGTGGCGGTG	840
GAGCGACTAT TGGTCTTGCG ATTTGTCTCT TCCTATTTAG TAAGAGTCGT GCGAATAAAA	900
CATTAGGTAA GCTAGCTATT ATACCGTCTA TTTTAAATAT CAATACAGCT ATTCTATTTA	960
CGTTTCCAAC AGTTTAAAT CCGATTATGC TGATTCCGTT TATTGCTACT CCTACAATCA	1020
ATGCCTTGAT TACCTATGTA TCAATGGCTG TAGGATTAGT ACCCTATACA ACAGGTGTAA	1080
TCCTTCCGTG GACAATGCCA CCGATTATAG GAGGCTTCCT TGCAACAGGG GCTAGTTGGC	1140
GAGGAGCTCT ATTACAAGTT GTTTTGATTT TGGTTTCTGT AGCAATTTAT TATCCATTCT	1200
TCAAAATTGC AGATAAACGC AATCTTGAAA AAGAAAAAGC TACTGTTGGA GGGAAATAAG	1260
ATGGTTATCA GAGTATTTGA TCAACAGAAA AATACTTATT CTAGCTTTGC CTTAGAGGAA	1320
TTAAGTTACT ATATGAATCG GGTCTTTAAG ACTAACATAG AGCTTGTCGA GGAGAAGGAA	1380
GCGGATATTT TTGTAGGATT AGTCAATAAA GAGGACAGAA AAGACCATGT TCTTATCTCA	1440
TTAGACAAGG GTAAGGGGAG AATTGAGTCT AATACAATTG TAGGTTTACT TATTGGAATT	1500
TACCGAATGT TTCATGAATT TGGGGTTGTG TATACTAGAC CAGGGCGCAG ACATGACTTT	1560
GTTCCAGAGT TACGATTTGA AGATTTTTTA GATAAACAGC TATCTATAGA TGAAACAGCC	1620

547

AGTTACTATC ATAGGGGAGT ATGTATAGAG GGAGCGGATT CATTTGAAAA TATACTAGAT	1680
TTTCATTGATT GGCTACCTAA GATTGGGATG AACAGTTTTT TCATCCAGTT TGAAAATCCT	1740
TACTCTTTTT TGAAACGTG GTATGAACAT GAATTTAATC CATATCTAAA TAAAGAACAA	1800
TTTTCAAATG AATTAGTACA AGAATTGAGT GATAGGTTGG ATAAAGAATT GCAAAAAGA	1860
GGTCTTATTC ATCATCGTGT TGGTCATGGA TGGACAGGTG AAGTTTTAGG TTACTCTTCA	1920
AAATTTGGCT GGAATCAGG TCTTAGTATT TCAGAGGAGA AGAAACCTA TGTCGCTGAA	1980
ATAAACGGGA AACGAGAATT GTTTAATACG GCTCCGATTT TAACCAGCCT GGATTTTTCA	2040
AATCCAGATG TAGCTGATAA GATGGTAGAA ATTATCAAGG ATTATGCCAA GAAAAGACCT	2100
GATGTAACT ACTTACATGT ATGGTTGTCG GATGCTCGTA ATAATATTG TGAATGCGAA	2160
AACTGTAGAC AAGAATTGGT TTCGGATCAG TATATTCGTA TTCTCAATCA ATTGGATAGG	2220
GCTTTAACGA GTGAGGGATT AGATACAAAG ATTTGTTTTC TGCTTTATCA TGAGTTGTTA	2280
TGGGCACCTC AGAAAGAAAA ATTAGATAAT CCTGAACGCT TTACCATGAT GTTTCACCG	2340
ATTACAAGAA CATTTGAAAT GAGTTATGCA GATGTAGATT TTGACAATTC CATACCTACG	2400
CCTAAACCTT ATATGCGTAA TAAAATTATA CTCCGAATT CTCTTGAGGA AAATTTATCT	2460
TATCTTTTGT AGTGGCAAAA AGCATTTAAA GGAGATAGTT TCGTATATGA CTATCCTTTA	2520
GGGCGTGCTC ATTATGGCGA TTTAGGCTAT ATGAAAATTA GTCAAACTAT TTACAGAGAT	2580
GTATCTTATC TTTCCAACCT ACATTTGAAC GGGTACATTT CGTGTCAAGA ATTACGTGCC	2640
GGATTCCTC ATAATTTTCC TAATTATGTC ATGGGGGAAA TGCTCTGGAA GAAGACAAGA	2700
AGTTATGAAG AATTGATTGA AGAATACTTT TCTGCTTTGT ATGGGGAAAA TTGGCAGTCT	2760
GTTGTTGAAT ATTTAGAAAA ATTATCCATT TATTCCTCTT GTGATTATTT TAATGCAATT	2820
GGCAGCCGTC AAAGTGATGT TTTAGCGAAT CATTATTATA TAGCTTACAA TCTAGCTGAT	2880
AATTTTTTAC CAATTATTGA GGAAAATATT TCTAAGTTAT TAAATAGTCA AAAGGATGAA	2940
TGGAAACAGC TCAGTTATCA TCGTGAATAT GTTGTAAAGA TGGCGAAGGC TTTATATCTT	3000
CAAGCAACTG GAAAAACAAG GCAAGCTCAA GATGAATGGA GAAATGTGTT GAATTATATC	3060
CGTGGGCACG AATTGCTATT TCAATCTAAT TTGGATGTTT ATCGTGTAAT TGAAGTAGCA	3120
AAAAATTACG CTGGTTTCCA CTTATAAATC ATAAGTATAG AAAATGAACT AAGGTATTCA	3180
GAGAAGATTG ATCCTAAATA TTATGAAATT TAAGGATTTT TAAGATATTT AGGGTCAACT	3240
TTCTATTAT ATCGTAGCGA AGTCATTTA ATAATGATGT GTAAAAGATG GATCAAGATT	3300
GAGGAGGAAG AAAGATGAAA TCAAAAGAAG AAATAAATAT GCTTGTTT ACAATTGTCG	3360

548					
CTTACGCAGG	AGATGCAAGG	TCAGATTGTA	TGGATGCTTT	GGCGTTTGCG	AGAGATGGAT
ATTTTGAACA	GGCAAGAGAA	TTGGTTGAGT	CTGCAAACGA	CTCAATAGTG	TCTGCCCCATC
GAGAACAGAC	TAATTTATTA	GCGGAGGAGG	CATATGGAGA	TAATTTTGAA	GTGAGCTTTA
TTATGATTCA	TGGTCAAGAT	ACTTTGATGA	CAACGATGCT	ATTGTATGAT	CAGGTAAAGT
TTTTTATGTA	TGAATATGAA	CGAATTCGAA	AGATTGAAGA	ACATATTGGT	TTGCAATGAG
GATTAGTCAT	GGAAAATTTA	CAGGTTAAAG	CCTTACCGAA	GGAGTTTTTA	TTAGGAACTG
CTACCGCTGC	TTATCAAGTA	GAGGGTGCAA	CTAGGGTAGA	TGGCAAAGGA	ATAAATATGT
GGGATGTTTA	TTTGCAAGAA	AATAGTCCGT	TCTTACCAGA	TCCAGCTAGT	GATTTTTTATT
ATCGTTACGA	AGAGGATATA	GCTTTGGCGG	CAGAACATGG	TTTGCAAGCT	TTGCGTTTAT
CTATTTCTTG	GGTTCGTATA	TTTCCTGATA	TAGATGGGGA	TGCTAATGTA	TTAGCTGTTC
ATTATTACCA	TAGAGTTTTT	CAGTCTTGCT	TAAAACATAA	TGTGATTCCG	TTTGTTTCTT
TACATCATTT	TGATTCGCCT	CAGAAAATGT	TAGAAACAGG	GGATTGGTTG	AACAGAGAGA
ATATTGATCG	TTTCATACGA	TATGCTCGCT	TTTGTTTCCA	AGAATTTACA	GAAGTCAAGC
ATTGGTTTAC	AATCAATGAA	CTGATGTCTC	TTGCTGCAGG	TCAATATATA	GGAGGTCAGT
TTCCTCCAAA	TCATCATTTT	CAATTATCTG	AAGCAATTCA	AGCGAATCAT	AATATGTTGT
TGGCGCATGC	TCTTGCAAGT	CTCGAATTTT	ATCAATTAGG	GATTGAGGGA	AAGGTAGGTT
GTATTCATGC	TTTAAAGCCA	GGCTATCCTA	TTGATGGGCA	AAAAGAAAAT	ATTTTGGCAG
CTAAACGGTA	TGATGTTTAT	AATAATAAAT	TTCTATTAGA	TGGAACTTTT	TTGGGCTACT
ACAGTGAGGA	CACGCTTTTT	CACTTGAATC	AAATATTGGA	AGCTAATAAT	TCTAGCTTTA
TTATTGAAGA	TGGTGATTTA	GAAATTATGA	AGAGAGCTGC	ACCTCTTAAT	ACGATGTTTG
GGATGAATTA	TTATCGTTCA	GAATTTATTC	GTGAATACAA	AGGTGAAAAT	AGACAAGAAT
TTAATTCAAC	AGGAATAAAA	GGACAGTCTT	CTTTTAAATT	AAATGCTCTA	GGTGAATTTG
TAAAAAAACC	TGGTATTCCG	ACAACAGATT	GGGATTGGAA	TATTTATCCT	CAAGGGTTAT
TTGATATGTT	GCTTCGTATC	AAAGAAGAAT	ATCCTCAACA	TCCGGTCATT	TATTTAACTG
AAAATGGTAC	AGCCCTTAAA	GAAGTTAAGC	CAGAGGGCGA	GAATGATATT	ATTGATGACA
GTAAGAGAAT	CCGTTATATT	GAGCAACATT	TACACAAAGT	TTTAGAGGCT	CGAGATAGAG
GAGTCAATAT	TCAAGGCTAT	TTTATATGGT	CTTTGCAAGA	TCAATTTTCT	TGGGCGAATG
GCTACAATAA	GCGATATGGT	CTTTTCTTTG	TTGATTATGA	AACACAGAAG	AGATATATTA
AGAAAAGTGC	TCTTTGGGTA	AAAGGGCTAA	AACGGAATTA	AGGTTAGCGA	TTTGACTGAT
GTTTAATATG	TTTTAAATAT	GAGGTGAAT	TTTTTATAGG	AGGAGTTTTA	TGGATAAGCT

549

AGTCGCTGCC	ATTGAAAAGC	AACAAGGGAA	ATTTGAAAAA	ATTTCTACTA	ATAACTATAT	5220
GATGGCTATT	AAAGATGGAT	TCATTGCTAC	TATGCCTTTA	ATTATGTTTT	CAAGCTTTTT	5280
GATGATTATT	ATTATGATTC	CTAAAAATTT	CGGAGTAGAG	TTACCGAGTC	CAGCTATTGT	5340
CTGGATGAGA	AAAGTGATA	TGTTAACCAT	GGGAGTTTTG	GGTATTATTG	TTTCAGGGAC	5400
TGTTGGAAG	TCATTAGTTG	GAAATGTTAA	CAGAAAAATG	CCTCACGGAA	AGGTAATAAA	5460
TGATATTTCT	GCAATGTTGG	CAGCCATATG	TAGTTATCTG	GTATTAAC TG	TAACGCTTGT	5520
AGTTGATGAG	AAGACGGGAT	CTACAAGTTT	GTCGACAAAC	TATTTAGGAT	CTCAAGGATT	5580
GATAACTTCG	TTTGT CAGTG	CCTTTATTAC	TGTAAATGTT	TACCGATTCT	GTATTAAGCG	5640
AGACATTACT	ATTCATTTAC	CTAAGGAAGT	TCCTGGGGCT	ATATCACAAG	CTTTTAGAGA	5700
TATTTTCCCT	TTTTCTTTTG	TTTTACTTAT	TAGTGGTTTTG	TTAGATATTG	TATCTCGGTT	5760
TAGTTTAGAT	GTTCTTTTG	CCCAAGTATT	TCAACAAC TA	TTGACTCCTA	TTTTTAAGGG	5820
GGCAGAATCA	TATCCTGCTA	TGATGTTGAT	TTGGTTTATG	TGTGCTTTGC	TTTGGTTTGT	5880
TGGAATTCAT	GGACCATCTA	TTGTCTTACC	TGCTGTTACA	GCTTTGCAAC	TGAGCAATAT	5940
GGAAGAGAAT	GCTCAACTTC	TTGCAAATGG	GCAGTTC CCT	TATCATTCTT	TAACACCTAA	6000
TTTCGGGAAT	TATATCGCTG	CTATTGGAGG	AACGGGGGCT	ACCTTTGTTG	TACCATTTAT	6060
TTTGATTTTC	TTTATGCGGT	CTAAACAATT	AAAATCGGTA	GGTAAAGCTA	CAATTACTCC	6120
TGTTTTATTT	GCGGTAAATG	AACCTCTTCT	ATTTGGTATG	CCTGTTATTT	TGAATCCCTA	6180
TCTTTTTGTC	CCTTTTTTGA	TGACTCCACC	AGTGAATGTA	TTTCTAGGAA	AGGTCTTTAT	6240
TGATTTCTTT	GGAATGAATG	GATTTTATAT	CCAGTTACCT	TGGACCTTTC	CTGGTCCCTT	6300
GGGATTGTTA	ATTGGAACGA	ATTTTCAACT	TATCTCCTTT	GTATTTTTAT	CTTTGATTTT	6360
AGTTGTCGAC	ATATTGATTT	ATTTGCCATT	CTGTAGAGCG	TATGATAGAC	AGTTACTGGT	6420
GAAAGAAGAT	ATTGCAAGCT	CAAATGATAT	TATTTTAGAG	GAGGATACAA	GTGAAATAAT	6480
TCCTGGTGAG	ATAGATGAAA	TAAAAAGTAA	GGAGTTGAAA	GTACTGGTTC	TTTGTGCAGG	6540
GTCTGGAACA	AGTGC GCAAT	TAGCCAATGC	AATTAACGAG	GGGGCTAACT	TAACAGAGGT	6600
TAGAGTGATT	GCGAATTCAG	GAGCGTACGG	AGCTCATTAT	GATATTATGG	GTGTTTATGA	6660
TTTAATTATT	CTGGCCCCAC	AAGTTCGGAG	TTATTATAGA	GAGATGAAGG	TGGATGCAGA	6720
AAGATTAGGT	ATTCAGATAG	TTGCTACCAG	AGGAATGGAA	TATATTCATT	TAACAAAGAG	6780
TCCAAGTAAA	GCCTTACAAT	TTGTATTGGA	GCATTACCAA	GCTGTGTAGT	AAGTTTTTCC	6840
ATCTTTTATT	TGAGTAAAGA	TTTTGTTTAC	AGATAGGCTT	GGATTTAAAA	ACGTTCCCCC	6900

550

TTTTTTAATA TAAGAATCCC TCTTTCACAA TTGTAAAAAG AGGGATTTTG TATTTTATCT	6960
CTTAGACCAA GTTCTCTTCA TAAAGAGAAG GAGGATTGGG TAAATCTCCA AGCGCCCTGC	7020
AATCATTGCA AAGGATAGGA GAATTTTGA GATGGGACTA AAGATTGAGA AACTAGAACT	7080
GGTTCCTAGA ATAGGCCCGA TATTATTGAA ACAGCTAAAG ACAGCGCTGG TCACGACCAG	7140
AAAATCATTG CTATCTAGGC TGACAATAAA GATAAGCGCT AGCAAAATCA TAGCATAGAT	7200
GACAAAGTAC TTGAGAATCT TATGCTGGGT ATCTTTGTCA ATCACCGTTT TATTAACATG	7260
GAGGGTCAAA ACACGGTGGG GCGATAGGAT TGACAAAATT TGGTTTTTGG CAATTTTGA	7320
AAGGATGAGG CCTCGAATAA TCTTGAGTCC ACCTGCAGTT GATCCAGCAG AGCCACCGAT	7380
TGCCATGAGG AAAAGGAGGA TAACTGGGA GAAGAGGGGC CAGTTGGTAA TATCTCCATA	7440
TCCAAAACCA GTTGTGTGTA TGATGTTGGA AACCTGGAAG AAGGTCATTT CAAAGCTCTT	7500
TGAAAACCCCT GGGTAGAGGT AGAGGGTGTT GAGGCTAATC AAGCCTGTAG AAACCAGTAC	7560
AATGACCAAG TAAGCCCTAA GCTCTTCATC TCCAAAGAAG GCCTTGATGC GACGGAGCAT	7620
GAGGTAGTAG TAGAGGTGA AATTTACTCC AAAAACCAGA ACTCCGATAC TGACCAGATA	7680
GGTAATCAGT GAGCTGCCAT AGTGGGCAAT TCCGTCGTTA TAGACGGTAA AGCCTCCAGT	7740
TCCCGCTGTC CCCATAGCAA TAACAAAACCT ATCGTAGAGA GGCATACCGG CTAGATAATA	7800
GATGATGACA AAGAGGGAGA AGAGAGCTAG ATAAAGGAGA TAGAGAATCT GGGCAGTGTT	7860
TTTTAGTTTG GATACAACCT TGCCAAAAAC AGGACCTGGA ACCTCAGCCT TCATCACCTC	7920
TAGGTGGCTA TTTTGGCAT TGTCCATAAT AGCAAGTGCA AAAACAAGCA CTCCCATCCC	7980
TCCAATCAAG TGGGTAAAAC TTCGCCAGAA GAGGAGGGAA CGGCTGAGAA CCGAAACGTC	8040
GTTCAAAATA CTTGCTCCAG TAGTTGTAAA TCCAGAACTA ATTTCAAAAA AGGCATCAAT	8100
AAGGCTGGGG ATTTGCCCAG AAAAGACAAA GGGGAGACCA CCAAAGAAAG ACCAAAGGAT	8160
CCAACAGAGG GCAACGATCA AGACTCCCTC CTTGGCATAA ATCCGTTGAT TTTTGGCTT	8220
CTGTAAACTC CCTGAACCGC CTAACAATAC GAGAATCCCT ATGGTCGAAA AGAGGGCTGT	8280
AAAGACTTGG CTCGATTCAC GGTAATAGAC AGCAATCGCA ACAGGAACCA AAAGAAGAAC	8340
AGCTTCAATC AAAAGTAATT TTGAAAGGAG GTAACGAATC ATACTTTTAT TCATTTCTTA	8400
CCTCGGATC AAGTCATAAA TCTTGGTGAT GTTTGGCAAC AAGGTTGTTA CTAGGAGCTT	8460
GTCTCCAAC TCCAACATAT CCTCCCCAGT TGGGAAAATA GTCTTGCCCT TTCGAATAAT	8520
GGCTGCAATA AGAACCCCTT TTTTCAATTT CAGTTGAGAA AGAGGTTTGG CAGTCATTTT	8580
ATTGGCTTCC TTGATATGGA ATTGCAGGGT TTCGATTGG CCATTGGCTA GATGGTGCAT	8640
AGCTTGAAGG TCTGAATACT GGGCATTAAC TCGACCACGA ATAAAGTGCA TAATCGTATC	8700

551

TACAGCGATG CTTTtaggtg TGATGATACT TGAAAAATCA GGCGCATTGA TAATCTCGAG	8760
GAGACTGGTA CGATTGACCT TAGTAATATT TTTCTGTACA CCTACCCTGT CAAGGAACAT	8820
AGATGTAATC AGATTTTCCT CATCGACTCC TGTTAGAGTC GCAACGGCAT CATAGTGTTC	8880
AGCACTTTCT TCCAGCAGGA TATCTTTTGC GGTTCATCT CCTTGAACGA TGTAGAGATT	8940
TGGGAATTC TCGCTAAAGA AGCTGGCGAT TTCAGGATTG ATTTCAATGA CTTTGTATC	9000
GATACGACTA TCTTTGAGAA TACCAAGTAG ATAATAGGCA ATTCTACCTG CCCCAACGAT	9060
GAGAAGGCTC TTCACGGCGC GTGATTTAAA ATAATTATGG AAGAGTATCA TATCGACACG	9120
GTTACCACTG ACAAAGATTC TATCTTTATC CTGTACAGTC ATGTCACCGC TTGGAATGAT	9180
AATTTGATGA TCCCTCTCTA TCGCACAGAC AATGACATTA CCAAATTTT TACGAAAATC	9240
AGAAATGGC ATTTGGCAA GACCGCTGGT GGACTTGACG ACAAATCCA TGAGGCTAAC	9300
GCGTCCACCA GCAAAGCGT CGACAGACAG GCGTTGGGG AAGTCAATGA TATCGCGAT	9360
AGCGCGGGCA GCCAAGAGCT CAGGATTAAC GATAAGAGAA AAACCGAGAA TATTCTTTTC	9420
CTTGAAATA GAGTTAGAAT ATTCAGGTT CCGCACCCGA ACGATAGTTT CTTTAGCTCC	9480
CATTTCTTG GCTAGAACTG CTGCAATCAT GTTGACTTCA TCGTGCTCAG TCAGGGCGAT	9540
AAAGATATCA CAATCTTGA CGCTGGCTTG CTCAAGAATG GCAAATCGG CCCCGTTACC	9600
AAGGATACCA ATGATATCAA AGCGACTGAC AATATGATTG AGAACAGCTT CGTCTGCTC	9660
AATCAGCAA ACATCATGCT TTTCTGCAAC CAAGGAGCGA CAGAGGGCAA AACCAACTTT	9720
TCCCCCTCCG ACAAGGATA TTTTCATAAT AAAACCTACT TTTTCATGAT GTAACATCA	9780
TACCTTTTT CAAGAAAAA TGCACCTACT AGCTAATAAC AAGAGTTTTT AGTGAAAATT	9840
CGCTATAAGG TAAAACTATA CCCTAACCA TTGAAATAGC TATTAGCGAC TTTCTCTGAA	9900
ATATGGTATG ATAAAGGATA TACAAGGAGA TAAATGAAT AATAATTAC TGGTATTACA	9960
ATCAGACTTT GGTCTGGTTG ATGGTGCGGT ATCGGCTATG ATTGGAGTGG CTTTAGAAGA	10020
GTCTCCAACC TAAAAATAC ATCACTTGAC GCACGATATC ACGCCTTATA ATATTTTGA	10080
GGGGAGCTAT CGTCTCTTC AGACGGTGA TTA CTGGCCT GAGGGAACGA CGTTTGTATC	10140
GGTTGTTCGAT CCAGGTGTCG GTTCGAAACG TAAGAGTGTA GTTGCCAAGA CTGCAAAAAA	10200
TCAATACATT GTCACGCCAG ATAATGGGAC GCTTTCCTTT ATCAAGAAAC ACGTTGGCAT	10260
TGTAGCCATT CGTGAGATT CTGAGGTGGC CAATAGGCGT CAAAACACAG AGCATTCTTA	10320
TACCTTCCAC GGTCGTGATG TCTATGCCTA TACTGGTGCT AAAGTGGCCA GTGGTCACAT	10380
TACTTTTGAG GAAGTAGGGC CAGAGCTCAG TGTGGAACAG ATTGTAGAGC TTCCAGTCGT	10440

552

AGCGACCATC ATAGAAGATC ATCTGGTGAA GGGAGCCATT GATATTCTGG ATGTGCGTTT	10500
CGGTTTCGCTT TGGACCTCTA TCACACGGGA AGAATTTTAC AAGCTGGAAC CAGAATTTGG	10560
TGATCGTTTT GAAGTGACCA TCTATCATGC TGATATGCTG GTCTATCAAA ATCAGGTTGT	10620
CTATGGCAAA TCATTTGCAG ATGTGAGAAT TGGGCAACCs ATcTTTACrc TCAGCaTCTt	10680
CGATTAGCTG GGCAATTCGT TCTAGTTGGA TTTCGTCAAT CAAGGT	10726

(2) INFORMATION FOR SEQ ID NO: 67:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7163 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

TTATCTTTAA CGATATCAAT CAAGATCTGG TCAATAAAGG GATTGGGGCT TATCGTGAAG	60
TTGGCATCCA AGCCCATGGA TATGTCTGTG ACGTGACAGA CGAGGACGGT ATCCAAGCCA	120
TGGTCAAGCA AATCGAACAA GAGGTTGGTG TCATTGACAT CCTCGTTAAT AACGCTGGTA	180
TTATCCGCCG AGTTCCAATG TGCGAAATGA GCGCCGCTGA TTTCCGTAAG GTCATCGATA	240
TTGACTTAAA CGCACCATT TATCGTTTCAA AGGCAGTTAT TCCTTCTATG ATAAAGAAAG	300
GGCATGGAAA GATTATCAAT ATTTGTTTCA TGATGAGCGA ACTGGGACGT GAAACAGTTA	360
GCGCTTATGC TGCTGCTAAA GGGGGCTTGA AAATGTTGAC CCGCAACATT GCGTCTGAAT	420
ACGGTGGAGC CAATATCCAA TGTAACGGAA TTGGACCGGG TTATATTGCC ACTCCTCAAA	480
CAGCACCTCT TCGTGAATTG CAAGAAGATG GTTCTCGCCA CCCATTTGAC CAGTTCATCA	540
TTGCAAAAAC ACCTGCTGCA CGTTGGGGAA TACTGAAGA TTTGATGGGC CCTGCTGTCT	600
TTCTCGCTAG TGATGCCAGC AATTTTGTCA ATGGCCACAT CCTATATGTA GATGGCGGTA	660
TCTTAGCCTA CATCGGAAAA CAACCTGAGT AAAAATAGAA AGAAGATCTT ATGAAAATCG	720
CATTAATCAA TGAAAATAGT CAAGCTAGCA AGAATCACAT TATTTACGAT AGTCTAAAAG	780
AAGCGACAGA TAAAAAAGGC TACCAATTAT TTAACATATG TATGCGTGGA GAAGAAGGAG	840
AAAGTCAATT AACTTATGTG CAGAACGGAC TAATGGCTGC CATCCTTTTA AATACAAAGG	900
CAGTTGACTT TGTGTGTTACC GGCTGTGGTA CGGGTGTAGG GGCTATGCTT GCTTTAAACA	960
GCTTCCCTGG TGTGTCTGT GGTCTAGCAG TGGACCCAAC TGACGCTTAC CTTTATTCTC	1020
AAATCAATGG TGGTAACGCC TTGTCTATCC CTTATGCCAA AGGATTGGC TGGGGGGCAG	1080
AACTGACCTT CAAATTGATG TTTGAACGCT TATTTGCTGA AGAAATGGGC GGTGGCTACC	1140

553

CAAGAGAACG	TGTAATCCCT	GAACAACGCA	ACGCTCGTAT	CTTAAACGAG	GTGAAACAAA	1200
TCACCCACAA	TGATTTGATG	ACCATCCTTA	AAATAATCGA	CCAAGACTTC	CTCAAAGACA	1260
CCATCTCTGG	CAAATACTTC	CAAGAATACT	TCTTTGAAAA	CTGCCAAGAT	GATGAAGTTG	1320
CTGCTTATTT	GAAAGAAGTA	TTAGCCAAGT	AAAGCTATTC	TAAACCAGAA	AGGAACTAAT	1380
GGATGACGAA	AATATTACTG	TTGGGCGAAC	CATTAATTCG	AATTTACCA	TTAGATGCCA	1440
CCAGTATCGG	CGATCATGTT	GCCAGTTCGA	CTTATTTTGG	CGGATCAGAA	ATTAACATCG	1500
CTTGTAATTT	GCAAGCCCTG	GGTATCTCAA	CGAAAGTTT	TACCGCACTC	CCTGCCAACG	1560
AGATTGGAGA	TCGTTTCTCT	ACATTCTTGA	AACAGCACCA	AATCGATACC	AGTTCAATCT	1620
GTCGGCTTGG	CGATCGAATC	GGCCTCTACT	ATTTGGAGAA	CGGCTTTGGT	TGTCGTCAAA	1680
GTGAAGTTTT	CTACGATCGT	AAGCATACGA	GTATCAGCCA	GATTCGGCCA	AACATGCTAG	1740
ATATGGATTC	TCTCTTTCAG	GGGATTAGCC	ATTTTCATTT	TAGTGGAAATC	ACCGTAGCTA	1800
TCGGTCAAGA	GGTCCGTGCG	ATCCTTCTCC	TACTCTTGGA	AGAAGCCAAG	CGCCGAGGAA	1860
TTGTCGTTTC	AATGGATCTC	AATCTGAGAA	CAAAGATGAT	TTCAGTCCTA	GAAGCCAAGT	1920
ATGAATTTTC	TAAGTTTGCA	CGTTTTACTG	ACTATTGCTT	CGGTATTGAT	CCTCTCATGA	1980
TTGATGACCA	AAATCTAGAG	ATGTTTCCAA	GAGACAGTGC	TAGCCTAGAA	GAGGTGGAAA	2040
ATCGCATGCG	ACTTTTAAAA	GAAGCCTATG	GTTTCAAGGC	CATTTTCCAT	ACCCCTCCGT	2100
CTAGTGATGA	GCAAGACAAA	AATGTCTATC	AAGCCTATGC	TCTAGAAGAA	CTATTTGAAG	2160
AGTCTGTCCA	ACTAAAAACT	GCAGTCTATC	AACGAATTGG	TAGCGGGGAT	GCCTTTATAT	2220
CTGGTGCCCT	TTACCAACTA	CTCCATCATT	CCTCCCTAAA	AACTACCATT	GACTTTGCAG	2280
TTGCGAGCGC	AACTCTCAAA	TGCACTCTTC	CAGGAGACCA	TCTCTCCACT	TCCTCAACTA	2340
GTATTGAAAA	TTTACTGGCA	AATGCACAAG	ATATCATTCG	TTAGGAGAAT	TACATGACCA	2400
AATCAGATAC	GATTATTGAA	CTAAAAAAC	AAAAAATTGT	CGCTGTTATT	CGAGGAAATA	2460
CAAAGGAAGA	AGGACTACAA	GCCTCGATTG	CTTGTATCAA	GGGCGGTATC	AAAGCTATTG	2520
AAATCGCCTA	TACCAATCAG	TATGCAGGAC	AAATCATCAA	GGAACCTGTA	GACTTGTATC	2580
AGGACGATCA	GAGTGTTTGT	ATCGGTGCAG	GTACTGTGCT	TGATGCCGTA	ACTGCTAGAG	2640
ATGCCATTCT	AGCTGGAGCA	AATTACGTTG	TTTCTCCATC	TTTCCATGCT	GAAACTGCGA	2700
AAATGTGCAA	TCTCTACAGC	ACACCGTACA	TTCCAGGCTG	TATTACCCTC	ACAGAGATCA	2760
CGACTGCACT	TGAAGCCGGT	AGTGAAATCA	TCAAACCTCT	CCCAGGTAGT	ACTCTCAGTC	2820
CAGCATATAT	CTCTGCAGTC	AAGGCACCGA	TCCCACAAGT	TTCCGTAATG	GTAACCGGAG	2880

554

GAGTCGGCCT	AAACAACATC	CCTCAATGGT	TCGCTGCTGG	TGCAGATGCC	GTTGGAATTG	2940
GTGGCGAACT	CAATAAACTC	GCTTCCCAAG	GCAACTTTGA	CCGCATCAGC	GAGATTGCCC	3000
AACAGTATAT	TACACTCAGA	TAAAATCATA	ACTACCCGTC	TAACGGGTGG	TTTATCTCAG	3060
AGCTATAAGC	CCAAATCATC	AGCCAGCGCC	TAAAGACGCT	GGCTTTCACG	TTGTTCAAGC	3120
CTTATTGCTC	TTGACTCGTC	ACTTGCCTCT	TTAAGAGACT	TTGGTATTAC	TTACCACTAT	3180
CCCTAAAGGG	ATCCTCATAT	TCTTTTACAC	TCAATTTATC	TAGTGCTATA	GTAGATTGAA	3240
ACTGGAATAG	TACACCTCTG	CTTCTAAAAC	ATTGTTAAAA	ATCGATTTGA	CTGTCCTGAT	3300
CGATTTTGTC	CTGTTCTTAT	TTCATTTTAC	TATATATCAT	ACTTTACTCG	TTCTCAAATT	3360
TTCATACTCA	TGAAGAAATC	ATCCACTCGA	TAATTTCTTT	AATCTTGACT	ATATTTCTTA	3420
ATTGTGGCTT	CATTAAGCCC	TACTGGACTT	ACATAATAAC	CTTCCTCCCA	GAAATGCCGA	3480
TTCCCAAAC	TGTACTTGAG	ATTGGCGTGT	TTGTCAAACA	TCATGAGTGC	ACTTTTGCCT	3540
TTTAAATACC	CCATAAACT	TGAAACACTT	AGCCTCGACG	GAATACTGAC	TAACATGTGT	3600
ACATGGTCTG	GCATTAAGTG	ACCCTCGATC	ATTTCACAC	CTTTATAACT	ACACAAGCGA	3660
TGAAATATTT	CGTCTAACT	ACTTCTATAT	TGATTATAGA	TGACTTTTCG	TCTATACTTA	3720
GGGGTGAACA	CAATATGATA	GAACACCTCC	ACTTTGTGTA	TGATAAACTA	TGAGTCTTTT	3780
GTGCCATATT	TTTTCTCCTT	TCGCTTTACA	ATTGGATTGA	ACACCTTTAT	TGTATCGCGT	3840
TTGGAGTTT	TTTGGTATAA	CCTTCGACGC	GCACCCGTAT	AGCGGGTGGT	TGTTTTGTCT	3900
CGCACCTCAC	GGAGCGAGAC	GGACTAATAT	AGTGGAGTGA	AATAGGATAC	GAACAAATTG	3960
ATTAGGAAAA	TCAAATGAAT	TTATAGAAAT	CTTTTAGCAG	TTATAACGTT	CTATTCTAGT	4020
TTCAAAACGC	TATAGTCACA	TAATAATGAA	GTAAGAAAGG	ATAAGTATCA	ACTTATCCTT	4080
TTTTAAAAGA	AAAATCCGAA	GATATTTGGC	CTTCTTCGGA	TTTTTTCTAT	TTTCCACAGT	4140
TTCATGTAAT	TCATCTAGAT	GATGAACAAA	TTAGTTGTTC	TTTCCTCTAC	GGAATAGATA	4200
AAATGCCCCA	AGTAGCAAGA	ACCCTAGACT	TGCCAAGATT	GACTGACCTT	CTCCTGTCTG	4260
AGGGAGATTC	TTTGTATCCG	AATGGTTCTT	TTCTCTTCA	GATTTTTCCT	TTCTTTTGA	4320
ATTCTGTA	TGTGGCTGAG	CTGCTTGCTC	TAGCTTTTTA	AAGACTTCCT	GATCTGGAGC	4380
TGATTCCCTGG	GTTTCAGGAT	TATAGTAGGC	AATCTTATAT	TCATCCCCTT	CTTTTCGAAT	4440
GGTATAGACT	CCACGTTTCA	AACTTGGA	TTGGTTGGAA	ATAGTAGAGA	CAGAATCATC	4500
ATATTTTACA	ATGCCCCAAA	CTCCTTGTTT	AGCATCATAA	ACAGACTGAA	GGGTTTCGTT	4560
ATTTTTCGATG	AGGCTACTTT	CTAACTCTTT	TATCATTTGA	TTGAAGGTGG	CACGATCCAC	4620
GTTAGGAATG	AGCATATAGC	CATAAGAATC	TCTATTTTGC	TTATGAGCCT	GACTAATCGT	4680

555

AAGAAATTCA	TTTTCAACTT	CCTTGCTCTGA	CTGTCCTTCA	TTGATATCCT	TCCAGGCTCC	4740
CTTTTGCAAA	GCCTTACTCA	TACTGATTGA	ACTCTTCTTA	AAGAAAAAGT	AACCAATATT	4800
CTTTTTCGAA	TCGAACGATT	CTAAAAAGAC	ACTTTGGGTT	TCAGGATAAT	CCTTTTCTTG	4860
TTCTGTAAGG	GAGGCTTCTT	TATCATTGAC	ATAGACTTTA	TATGGATTAC	CTGATCCAG	4920
TTTTCTCTGG	TCAATGTAG	TTGCAGCAGT	ATCTGTTGAA	GTGTTTGGGA	TATTGCTTCC	4980
TAAAAAGGCG	ATCTTATCCT	TTAGCATAAA	CCAGCTCTTA	TGAGCAGTCA	ATGTTTGATT	5040
CCAGTTGGTG	AAATCCATGG	TTGCTGTCGC	ATTGGCATCA	TCTAGTTTGC	TCGTTCCAAC	5100
GAAAGCAGAC	GGTAAACTT	TACCTGTATC	GCTATCCGCT	CTCTTAGCAT	CCGTCTCTGT	5160
TGTACCAGGC	ATCTTATATG	GATTAAGTGT	TGGCCAGTAG	CCATCGCTAT	AGTGACTCAA	5220
ATCGCCATTG	TAAAGATAGA	ACATCCCATC	ACTCGTATAC	CAACCACGTT	TATTTTCCTT	5280
GTTTCATGTGT	TCGTAATTCA	AGGTACGACT	GGAAAAGAGT	GACAAGCCAA	ATCCAAACCC	5340
TTTCTCTGCA	TTGTACATGG	CTGTTTATC	CATCTTGTTA	AAGGCAGATA	GGTAACTTGG	5400
TCTTGGAACA	CTTGCGACTC	CTGCATCACT	TAACAAGGAT	TGCATCAAAC	TGATATCCTT	5460
ATAAGTCTTC	AAATCTTAA	AGACATCATA	ATAACTATCC	GATTGAACAA	TGGTCTTCAC	5520
AAGACTCTGC	AAACATTGTT	TGGTTTCTCC	TTCAGACATA	TCCGCTATT	GGTGAATCCC	5580
TCTTAGTACT	TCTACTGCGG	CCACGTGCCC	CTCGCTATTT	GCACGACTGA	TCGAGCGTCC	5640
ACGACTCATA	TCCATCAACT	CTCCATTAC	CAGCAAAGGA	GCAAACGATT	TATCAATCCA	5700
GTGTACATG	GTTTGCATTT	TATCTTTATC	GATTGGATT	TTGGTCTTTT	GAATGACTGG	5760
CAACAGTTGA	GACAGGCCAT	CAATCAAAAC	ATTCCCATAA	GCACCCGTAT	AGGCAACATT	5820
GGTGTGGTCG	ATATAGGATC	CATCTTGATA	AAAACCTTCA	CCTTGGTCTA	CCAACTTGAA	5880
CACTTGCTCA	ATCGAGCGAA	TGGTAGAAGA	AATTTCTTGA	TCATCCTTAC	GCAGTAAACC	5940
AGCTATTACT	TTTACCCCTC	CCATATCAAC	TAAGTTTCCA	CCTAGAGCCT	TGAATGGGTT	6000
ATCAGTCGTC	TTTCGGAAAT	GTTTCGGGATC	TGGTACAAAT	TTTTCATCA	CATCTGTATA	6060
TTTTTTAATT	TCCTCATCAG	AGAAGTATTC	TTTCATCAGA	GACAAGGTAT	TGTTGATGGC	6120
ACGAGGTGTA	CCGATTTTCAT	AATCCCACCA	GTTCCCAACA	ATGCTCTTTT	CACTATTGTA	6180
GACATGTTTA	TGCATCCATT	CCATGGAATC	CCTGACTGTT	CGAACGACAG	TTTCATCTTG	6240
ATAATAACGA	GAAGAAGGAT	TGGTCACTTG	CTTGCCATC	TCCTCCAATT	TCCGATAAGT	6300
GGCAGTCAGA	TTTGCAGACG	TTTATAAATT	TGAAAATTTT	TCCCACAAAT	AGGTGCGGTC	6360
CGCCTGACTT	GAAATACTGG	ATAGGCTATC	AGCTACCTTT	CCTTCCAATT	CCTGGTTTAA	6420

556

TTTGGCCATC TGTTCAATTT TAGAATCATA GTATTGATTC CCAGCGATGA TGCCATTCCA	6480
GTCATCCAAA CGGTCTGTGT ATGCATCCTT AACAGAGGCC AGAATCTTCA AAGGAATCTT	6540
TTTCACTTCC TTGCCATCTT TACTGACAAT GACATTGGTT GTCCCTTCCT TAAGAGGTTT	6600
TAAAATTTCCA TTTTGGACTG AAGCAACGTC AGGATTTTCT ACCTTATAAG TATAGTCCGC	6660
AAGAGAAAAA ACATGTTTTT TTCCAATTGG TAAATCAATC TTTTCCTCAA GCTGTTTATC	6720
TGTTTGAGAA TCCTCAGAAA GCTGGTCTGC TACCTCTACC AGCTCAATAT CCTTAAAGGA	6780
AACAGTCCCA GTTCCTGTTT CATAGAATAA CTCCAGCTTG ATTTTATCAA CATCTAAAGT	6840
CGGGCTATAG TCTGCTTCAA TGGTCTGCCA GTCCTTTGTT CCTGACGTCG TTGCAGAATT	6900
CCACAATCGC TTGTCCTTAC CACTTTCCTC AATGATACGA ACTTTGGCAA TCCCGATTTT	6960
ATTATCTGTT TTAATCTTGA AACGCAGTTT ATACTTTTTC TTAGCTTCAA TAGGAACCAT	7020
ACGGTGAAGC GCTGCCCTTA ATTTCTCATG GCTTGAGATA GTGATAGCCC CATCCTTAGC	7080
CTCAATGACT CGAGTTGAGG CATCTGCACT ATTCTTCTGG TCTACCCAAG CTGACCACCC	7140
CCTGAGCTTT GCTTCCTGTC CGG	7163

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9244 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

CGTTATAACA TACATGTAAG CGGTACCCAA AATGGTGCCA AGTCAAAATT TTAAAGGAGG	60
AAAATACATG TCTTCACATC CAATTCAGGT CTTCTCAGAA ATTGGGAAAC TGAAAAAAGT	120
TATGTTGCAC CGTCCAGGCA AGGAGTTAGA AAACCTGTTG CCGGACTATC TTGAAAGGCT	180
TCTTTTGTAT GATATTCCTT TCTTGGAAGA TGCTCAAAAA GAACATGATG CATTTGCCCA	240
AGCTCTTCGC GATGAAGGAA TTGAGGTTCT CTACCTAGAA CAACTCGCTG CTGAATCATT	300
GACCTCTCCA GAAATCCGCG ATCAATTTAT CGAGGAATAC TTAGACGAAG CCAACATCCG	360
TGATCGTCAA ACCAAGGTTG CTATTCGTGA ATTGCTTCAC GGCATCAAGG ACAACCAAGA	420
ATTGGTTGAA AAAACAATGG CTGGGATTCA AAAAGTTGAA TTGCCAGAAA TTCCTGACGA	480
AGCTAAAGAT CTAAGTACT TAGTTGAATC AGAGTATCCA TTTGCAATTG ACCCGATGCC	540
AAACCTCTAT TTAAGTCGCG ACCCATTTGC AACAATTGGA AACGCCGTAT CGCTTAACCA	600
CATGTTTGCA GAACTCGTA ACCGTGAAAC ACTCTACGGT AAGTATATCT TCAAATACCA	660

557

CCCAATCTAT	GGCGGAAAAG	TGGATTGTTG	CTACAACCGT	GAAGAAGATA	CGCGTATCGA	720
AGGTGGAGAC	GAGTTAGTTC	TTTCTAAAGA	CGTCCTTGCA	GTAGGTATCT	CTCAACGTAC	780
AGACGCAGCT	TCTATCGAAA	AACTTTTGGT	CAACATCTTC	AAGAAAAATG	TTGGCTTCAA	840
GAAAGTTTGT	GCCTTTGAAT	TTGCTAACAA	CCGTAAATTC	ATGCACTTGG	ATACTGTCTT	900
CACTATGGTA	GACTATGACA	AGTTCATAT	TCACCCAGAA	ATCGAAGGCG	ACCTTCACGT	960
TTACTCAGTT	ACTTACGAAA	ACGAAAACT	TAAAATCGTT	GAAGAGAAAAG	GTGACTTAGC	1020
TGAACTTCTT	GCTCAAAACC	TTGGTGTAGA	AAAAGTTCAT	TTGATTCTGT	GCGGTGGTGG	1080
CAATATCGTA	GCAGCTGCGC	GTGAACAATG	GAACGACGGT	TCTAACACTT	TGACCATCGC	1140
ACCTGGTGTG	GTAGTTGTTT	ATGACCGCAA	TACCGTGACC	AATAAGATTT	TGGAAGAATA	1200
CGGGCTTCGC	TTGATTAGA	TTCGCGGAAG	TGAATTGGTT	CGGGGCCGTG	GTGGACCTCG	1260
TTGTATGTCT	ATGCCATTG	AACGTGAAGA	AGTGTAATCG	CTGTTCGATA	TTCGTCAATA	1320
GAAAATGTAA	AAAATAGAAA	GAGGAAATAA	TAAAATGACA	AATTCAGTAT	TCCAAGGACG	1380
CAGCTTCTTA	GCAGAAAAAG	ACTTTACCCG	TGCAGAGTTA	GAATACCTTA	TTGGTCTTTC	1440
AGCTCACTTG	AAAGATTGTA	AAAAACGCAA	TATTCAACAC	CACTACCTTG	CTGGCAAGAA	1500
TATCGCTCTC	CTATTTGAAA	AAACATCTAC	TCGTACTCGT	GCAGCCTTTA	CAACTGCGGC	1560
TATCGACCTT	GGTGCTCACC	CAGAATACCT	CGGAGCAAAT	GATATTCAGT	TGGGTAAAAA	1620
AGAATCTACT	GAAGATACTG	CTAAAGTATT	GGGACGTATG	TTTGACGGGA	TTGAATCCG	1680
CGGATTCAGC	CAACGTATGG	TTGAAGAATT	GGCAGAATTC	TCAGGCGTTC	CAGTATGGAA	1740
CGGTCTAACT	GACGAATGGC	ACCCAATCA	AATGCTCGCT	GACTACTTGA	CTGTTCAAGA	1800
AAACTTCGGT	CGCTTGGAAG	GCTTGACATT	GGTATACTGT	GGTGATGGAC	GTAACAACGT	1860
TGCCAACAGC	TTGCTCGTAA	CAGGTGCTAT	CCTTGGTGTC	AATGTTTACA	TCTTCTCACC	1920
AAAAGAACTC	TTCCCAGAAA	AAGAAATCGT	TGAATTGGCA	GAAGGATTTG	CTAAAGAAAAG	1980
TGGCGCACAT	GTTCTCATCA	CTGAAGATGC	TGATGAAGCA	GTTAAAGATG	CAGACGTTCT	2040
TTACACAGAC	GTTTGGGTAT	CAATGGGTGA	AGAAGACAAA	TTCGCAGAAC	GTGTAGCTCT	2100
TCTTAAACCT	TACCAAGTCA	ATATGGACTT	AGTTAAAAAA	GCAGGCAATG	AAAACCTGAT	2160
CTTCCTACAC	TGCTTGCCAG	CATTCCACGA	TACTCACACT	GTTTATGGTA	AAGACGTTGC	2220
TGAAAAATTT	GGTGTAGAAG	AAATGGAAGT	AACAGACGAA	GTCTTCCGCA	GCAAGTACGC	2280
TCGCCACTTC	GATCAAGCAG	AAAACCGTAT	GCACACTATC	AAAGCTGTTA	TGGCTGTAC	2340
ACTTGGTAAC	CTTTATATTC	CTAAAGTATA	ATTTTAGATA	ATAAACCGTC	TACCAACAGC	2400

558					
TATGAGGGCT	GCGACTAATA	GCTTTAGTCC	GGTCCTCTTT	TATGTAATGG	TAATCTATTA
TTTCTTATAA	AATATGTGAA	AAATCATTAA	ATTGAAATCT	AAACGCATTC	TATTGAGTGT
GATAAAGGAG	AATTTATGGC	AAATCGTAAA	ATTGTAGTAG	CTTTGGGAGG	AAATGCGATT
CTTCTTCTG	ACCCATCAGC	AAAGGCTCAA	CAAGAAGCTT	TAGTTGAAAC	AGCTAAGCAT
CTTGTAATAA	TGATTAAAA	TGGAGATGAT	CTGATTATCA	CTCACGGTAA	TGGACCTCAA
GTTGGGAATC	TCTTGCTCCA	ACATTTGGCA	TCAGACTCTG	AAAAGAACCC	TGCCTTCCCA
CTCGACTCAC	TTGTCGCTAT	GACAGAAGGT	AGCATCGGTT	TCTGGTTGAA	AAATGCCTTG
CAAAATGCTC	TCTTGATGA	AGGCATCGAA	AAAAATGTTG	CCTCTGTTGT	AACGCAAGTT
GTCGTAGATA	AAAATGATCC	AGCTTTTGTT	AACCTTGAGTA	AACCAATCGG	TCCTTTCTAT
TCAGAAGAAG	AAGCAAAAGC	AGAAGCCGAA	AAAAGCGGAG	CGACTTTCAA	GGAAGATGCT
GGCCGTGGCT	GGCGTAAGGT	CGTTGCCTCA	CCAAAACCTG	TTGACATCAA	AGAAATTGAA
ACCATCCGTA	CTCTTTTAAA	TAATGGTCAA	GTCGTCGTAG	CTGCAGGTGG	TGGCGGTATT
CCCGTCGTCA	AAGAAAACAA	TGGACATTTG	ACTGGTGTG	AAGCGGTAT	TGATAAAGAC
TTCGCTTCCC	AACGTTTGGC	AGAATTGGTT	GATGCAGACC	TCTTCATCGT	TTTGACAGGT
GTAGATTATG	TATTTGTTAA	CTACAACAAG	CCAAACCAGG	AAAAATGGA	ACATGTGAAT
GTTGCCCAGC	TGGAAGAATA	TATCAAACAA	GATCAGTTTG	CACCAGGTAG	CATGCTTCCA
AAAGTAGAAG	CAGCTATCGC	TTTTGTCAAT	GGTCGTCCAG	AAGGAAAAGC	AGTTATTACT
TCCCTTGAAA	ATCTAGGCGC	CTTGATTGAA	TCTGAAAGCG	GAACAATTAT	TGAAAAAGGA
TAAGTTGTTT	TACTAATAAG	ATGTATTCTA	TTTCTAGTAT	CTTTATATCA	AATTAGAAAT
TATTCCTGAA	AACATGTACA	ATATTTCAAA	AGATACTAGT	TTTAGACTTT	AATATGGTAA
AACAAATATA	AATAGAAAGC	GTTTTCTTGA	ATGTTTATTT	AAGAAAGTAG	TTGGTTTTTT
ACACTTTGTT	AGACATCAGG	AGGAAAAACA	AATGAGTGAA	AAAGCTAAAA	AAGGGTTTAA
GATGCCCTCA	TCTTACACCG	TATTATTGAT	AATCATTGCT	ATTATGGCAG	TGCTAACTTG
GTTTATCCCT	GCGGGGGCCT	TTATAGAAGG	TATTTACGAG	ACTCAGCCTC	AAAATCCACA
AGGGATTG	GATGTCTCA	TGGCACCGAT	TCGGGCTATG	CTAGGTACTC	ATCCAGAGGA
AGGTTGCTC	ATTAAAGAAA	CGAGCGCAGC	GATTGATGTA	GCCTTCTTCA	TCCTTATGGT
TGGTGTTTTC	CTTGGCATTG	TCAACAAAAC	TGGTGCTCTT	GACGTAGGGA	TTGCCTCTAT
CGTGAAGAAG	TATAAGGGCC	GCGAAAAAAT	GTTAATTTTG	GTAATGATGC	CTTTGTTTGC
CCTCGGTGGT	ACAACTTATG	GTATGGGTGA	AGAAACAATG	GCCTTCTATC	CACTCCTTGT
GCCAGTTATG	ATGGCCGTTG	GTTTTGATAG	CCTGACTGGT	GTTGCAATTA	TTTTGCTCGG

559

TTCTCAAATC	GGCTGTTTGG	CATCTACTCT	GAATCCATTT	GCGACAGGTA	TTGCTTCAGC	4260
GACTGCGGGA	GTTGGTACAG	GGGACGGTAT	CGTACTTCGT	CTGATCTTCT	GGGTTACCTT	4320
GACTGCTCTT	AGTACTTGGT	TTGTTTACCG	TTATGCGGAT	AAGATTCAAA	AAGATCCGAC	4380
TAAGTCACTG	GTTTATAGTA	CTCGCAAAGA	AGATTTGAAA	CACCTTTAACG	TAGAAGAATC	4440
TTCATCTGTA	GAATCTACAC	TTAGCAGCAA	ACAAAAATCA	GTTCTCTTCT	TATTTGTGTT	4500
GACATTCATC	TTGATGGTAT	TGAGCTTCAT	TCCATGGACA	GACCTTGGCG	TTACCATTTT	4560
TGATGACTTT	AATACTTGGT	TGACTGGTCT	TCCAGTTATT	GGTAATATTG	TCGGTTCATC	4620
TACTTCTGCA	CTAGGTACTT	GGTACTTCCC	AGAAGGCGCA	ATGCTCTTIG	CCTTTATGGG	4680
TATCCTGATT	GGTGTATTAT	ATGGTCTTAA	AGAAGATAAG	ATTATCTCTT	CCTTCATGAA	4740
TGGTGTGCT	GACTTGCTCA	GTGTTGCCCT	GATCGTAGCG	ATTGCTCGTG	GTATTCAAGT	4800
TATCATGAAC	GACGGTATGA	TTACCGATAC	AATCCTCAAC	TGGGGTAAAG	AAGGCTTGAG	4860
CGGTCTATCT	TCACAAGTCT	TTATCGTTGT	AACTTATATC	TTCTATCTAC	CTATGTCATT	4920
CTTGATCCCA	TCTTCATCTG	GTCTTGCCAG	CGCAACTATG	GGTATCATGG	CTCCACTTGG	4980
AGAATTTGTA	AATGTCCGTC	CTAGCTTGAT	TATCACTGCT	TACCAATCTG	CTTCAGGTGT	5040
CTTGAACCTG	ATTGCACCAA	CATCTGGTAT	TGTGATGGGA	GCTCTTGCAC	TTGGACGTAT	5100
CAACATTGGT	ACTTGGTGGA	AATTCATGGG	CAAACCTGTA	GTCGCTATTA	TTGTAGTGAC	5160
CATCGCCCTT	CTTCTCCTTG	GAACCTTCCT	TCCATTCCCTA	TAAAATAGTG	AGTGAGGTGA	5220
TTCCATGAAA	ATAGATATAA	CAAATCAAGT	TAAAGATGAA	TTTCTTATAT	CATTAAAAAC	5280
CTTGATTTC	TATCCTTCAG	TACTCAATGA	AGGAGAAAAT	GGAACACCTT	TTGGACAAGC	5340
AATCCAAGAT	GTCCTAGAAA	AAACTTTAGA	GATTTGTCTGA	GACATAGGTT	TCACTACCTA	5400
TCTTGACCCT	AAAGGTTATT	ACGGATATGC	AGAAATCGGT	CAGGGAGCAG	AGCTTCTGGC	5460
CATTCTCTGT	CATTTGGATG	TTGTTCCATC	AGGTGATGAA	GCAGATTGGC	AGACACCGCC	5520
ATTTGAAGCA	ACTATCAAAG	ACGGCTGGGT	ATTTCGGACGT	GGTGTCCAAG	ATGATAAAGG	5580
CCCTTCGCTC	GCAGCTCTCT	ATGCAGTAAA	AAGCTTGCTG	GACCAAGGTA	TTCAGTTCAA	5640
AAAGCGCGTA	CGCTTTATCT	TTGGTACCGA	TGAGGAAACC	CTCTGGCGCT	GCATGGCACG	5700
CTACAATACC	ATCGAAGAAC	AGGCCAGTAT	GGGCTTTGCA	CCTGACTCAT	CTTTTCCTCT	5760
GACCTATGCT	GAAAAAGGGC	TTCTACAGGT	CAAAC TTCAT	GGCCCTGGAT	CGGATCAACT	5820
AGAGCTTGAA	GTAGGAGGCG	CCTTTAACGT	TGTACCAGAC	AAGGCCAACT	ACCAAGGTCT	5880
CCTCTATGAA	CAGGTTTGTA	ACGGTCTCAA	AGAAGCTGGT	TATGATTACC	AAACCACTGA	5940

560

ACAAACCGTA	ACGGTTCTCG	GAGTGCCAAA	GCATGCTAAG	GATGCTAGTC	AAGGTATCAA	6000
TGCTGTCATC	CGACTAGCTA	CCATTCTTGC	TCCTCTCCAA	GAACACCCCTG	CTCTCAGTTT	6060
TCTTGCAACA	CAAGCAGGTC	AAGACGGCAC	AGGAAGACAA	ATCTTTGGTG	ATATAGCAGA	6120
TGAACCTTCT	GGTCACCTAT	CCTTTAATGT	CGCAGGTCTC	ATGATCAATC	ATGAACGTTT	6180
TGAAATCCGT	ATTGACATTC	GGACTCCTGT	CTTAGCTGAC	AAGGAAGAAC	TAGTAGAGTT	6240
GCTTACAAGA	TGTGCACAAA	ACTACCAACT	CCGCTACGAA	GAGTTTGACT	ATCTAGCGCC	6300
TCTATACGTC	GCAGAAGACA	GTAAACTCGT	TAGCACACTG	ATGCAAATCT	ACCAAGAAAA	6360
GACTGGCGAT	AACAGTCCTG	CTATTTTCATC	CGGTGGTGCC	ACTTTTGCTC	GCACCATGCC	6420
AAATGTGTGA	GCCTTCGGCG	CCTTATTTCC	AGGAGCGAAG	CAGACAGAAC	ATCAGGCAAA	6480
TGAATGTGCC	GTTCTAGAAG	ATTTGTACCG	TGCTATGGAT	ATTTATGCCG	AAGCCGTCTA	6540
TCGACTTGCA	ACTTAATCAG	GCAACTGTTT	CTACCAAAAA	AAATCGACCG	ATTAATGAAC	6600
TGCACCCCAA	AAGTTAGACA	GAATAAATCT	AACTTTGGGG	GTGTTTTATT	ATGAAATTGA	6660
GTTATGAAGA	TAAAGTTCAG	ATCTATGAAC	TAAGAAAGCA	AGGACAAAGC	TTCAAACAGC	6720
TTTCAAAAAG	ATTTGGGTGTG	GATGTTTCTG	GTCTAAAGTC	ATCTGAATCT	TTGAGATGAG	6780
CTTTATAAAT	CGCTTTTTTC	AGTTTTTGCA	CTGGTGTTC	GATAAACTCA	AACTTTTTAG	6840
CCGTGGTATT	GCCTGATTTT	ATAGTATATT	GAAACTAGAA	TAGTACACCT	CTCCTTCTAA	6900
AACATTTTTA	GAAATCGATT	TGACTGTCCT	GATCGATTGT	TCCTGTTCTT	ATTTCATTTT	6960
ACTATATTTG	AGCCACTTCG	TCTTTAACGG	CTTTATTCAI	AAGCTCTTGT	AATTTTCTT	7020
TACTATCAAT	TACTTCTGAT	TTTCCGTTGT	AATTTATTGT	AATAGGTTTT	AACTTACCTA	7080
ATTTCTCGAC	ACGCTCATTA	ATTTGATCTT	TTTTGAAGGC	TGCTTATGTT	TTTCTAAGA	7140
TTTTTTCAAA	AATATATTTA	TCAGATAGCG	GTTTGTCTTC	TTCTTCAGCT	TGGTTTTTGT	7200
ATTAATTTGA	AACATAAGGA	ACAAATCCTT	CATAGTAACC	TAATGCTCCC	ATAAGTTCAA	7260
AAGCTTGTTT	TCTAATTCAA	ACCATTGCAA	CTCAGATTTC	AGCTTTTCAG	ATAAATCCTG	7320
CTCATCCAAA	TAATGACTTG	AAATTAGTGC	TGAACTCGTT	TCTGTATCCT	GTACAGGCTG	7380
AGCACCCATA	CCAGCAAAAA	ATAAACTCGT	TCCTAGCAAG	ACCGAACAAG	CTCCTATTGC	7440
ATATGGCCTC	AAAGAAAAAC	GCTGCTTTCT	CTCAAATTGA	AATCTTTTCA	TCCCATCTCC	7500
CATCATTCAT	TATTACTGTA	TATTTTGTAT	ATCAGAAAATA	GTTTGTATTC	ACAAATCTTT	7560
CTAGTTATTC	CCTTATCATT	CCTAATTAAG	GGAGATAACA	TACAATAATT	TTTAGTTAAA	7620
TGTATATCGA	TGTTTTTTGT	TTTTCTTAAT	AAACGCAATA	CAAAAAGAGC	CTGTTACCAA	7680
GCTCTTTGTA	CTCAATGAAA	ATCAAAGAGC	AAATTAGGAA	ACTAGCCACA	GGTTGCTCAA	7740

561

AACACCGTTT	TGAGGTGCA	GATAGAACTG	ACGAAGTCAG	CTCAAAACAC	TGTTTTGAGG	7800
TTGCAGATAG	AACTGACGAA	GTCAGTAACA	TCTATACGGC	AAGGCGACGC	TGACGTGGTT	7860
TGAAGAGATT	TTCGAAGAGT	ATTAGTCTAT	TATTTCTTCT	CAGCGCGAAG	GGCTGACAAG	7920
ATTTGTGTTT	GGATATCATC	CACACCATT	GGAGTATTTG	GTAAAAAGAT	AGTTTGATTT	7980
CCTTTAGAGG	CAAAGGTATT	CAAGGTATCC	AAATACTGGT	TGGTCAAGAG	GATAGACATG	8040
ATTTGTTCTT	CTGTCATGCC	AACATTGGCT	TCCTTGAGTT	CGGTGATAGA	CTCTGCCAAT	8100
CCATCCACAA	TCGCCTTACG	TTGTTGGGCA	ATCCCCACAC	CATGAAGGCG	GTCTTTTCTT	8160
GCTTCTGCTT	CAGCTGCAGT	GACAATTTTA	ATCTTGTCAG	CTTCCGCCAA	TTCTTGTGCT	8220
GCGACCCGCT	TACGTTGCGC	CGCATTGATT	TCATTTCATG	ATTGCTTAAC	TTCTGCATCT	8280
GGTTCGACCT	TGGTAATCAA	GGTTTTACG	ATAATGTAGC	CGTAAGTGGT	CATTTCTTCT	8340
GCTACTTGGT	GTTGAACTTC	AAGGGCAATC	TCATCTTTTT	TCTCAAACAA	TTCATCCAAG	8400
GTTAATTTTG	GAACAGAAGA	GCGAAGAGCA	TCTTCGATAT	AAGATTTAAT	CTGAGATTCT	8460
GGACGTATGA	GTTTATAGTA	AGCATCTGTC	ACGCTCTGCT	CGTTGACACG	GTACTGAGTC	8520
GCTACATTCA	TCATAACGAA	CACATTGTCC	TTGGTCTTAG	TCTCAACCAC	AATATCACTT	8580
TGCAACAAGC	GCAACTGAAT	CCGTGCTGCA	ATCGAGTCAA	TCCCAAAAGG	CAAGCGAATA	8640
TGAATACCGC	TATTAGCAAC	CTTTTGGTAT	TTCCCAAAGC	GTTCAATAAT	CGCCACCGAC	8700
TGCTGACGAA	CCACATAAAC	TGTAATCAGT	GTGACTATCA	CCAATAGGAG	CACACAAACA	8760
ATCAGAAAAA	TCATGAAAAA	TATTGCCATA	ATGGAACCTC	CACAAGTATT	TTTCTAGTAT	8820
TATAGCACAT	TTAAAGAAGG	CTGTGCCGTT	TTTACTGCGA	TTTTTCCTGA	AATGTCAATA	8880
ATTAGAGGTG	AATTGTCCTA	TTGTCGTCCA	ATCTCTTGCT	AAAATAACTC	TTTATAAAAG	8940
GCAATCGTTT	CTTCTAAGGT	TGGCATAAAT	GGATTTCTCG	GTGCGCAGGC	ATCAATCAAG	9000
GCATTCTTAG	AAAGGTATTC	AAAGTCGAAA	TCTTTTCTT	CAATACCAAG	TTCAGTCAGT	9060
TTCTTAGGAA	TACCTACTGT	CTCAGAAAAG	TTCTCAATCT	CAGCAATCGC	ATAATCGGCA	9120
CATTCTTGAT	CTGATTTACC	TTCTACATGA	AGTCCCAAGG	CTTTGGCAAC	ATTGCGGAAA	9180
GCTTCTGGTA	CACGTTTAGC	ATTTTCACGT	TCTATAACTG	GTAGCAACAT	GGCACAGCAC	9240
ACGG						9244

(2) INFORMATION FOR SEQ ID NO: 69:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8898 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double

562

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

GATCTGAACT TTATCATCAT AACTTAATTT CATAATAAAA ACACCCCAAA AGTTAGATTT	60
TTTCTGTCTA ACTTTTGGGG TGTAAGTTCAG TCATTGGACT GACGTTTTTT TGTATGCTTA	120
TTTTGATTG ATGTAGTTGA TACCATCTGC TTTTGGTGCG ACTGCTTTTC CAAAGAAGGC	180
TGCTAAGACA AGAATTGTCA AAACATAAGG TGCAATTGTA AGATAAACCG CTGGCACTCC	240
TTGTAGGAAC GGCAATTGAG AACCGATAAC AGCCAAACTT TGTGAAAGTC CAAAGAAGAG	300
ACTAGAAAGC ATAGCACCGA TTGGATTCCA TTCCCAAAG ATCATCGCAG CAAGGGCGAT	360
AAATCCAGGT CCAACAATAG TTGTCACTGA GAAGTTAACT GAGATTGATT GCGCATAAAT	420
CGCTCCGCCA ATTCCACCTA GAAAACCTGA AATAATAACC CCTAAATATC TCATCTTGTA	480
GACGTTGATT CCCAAGGTAT CCGCTGCTTG AGGATGTTCA CCGACAGAGC GGAGACGAAG	540
ACCAAATTGA GTCTTAAAGA GAATAAACCA AGCAAGGAAT GAGAAGGCAA TCGCCAGATA	600
ACCAAGTAGA CTAGTTGACT TGAAGAAGAT ATCACCAATC ACTGGGATAT TTGCCAAGAC	660
TGGGAAATCA AAGCGTCCAA AAGTTTGACT TAGGTTGTCG GTTTGTCCTT TGTATAAAG	720
AACTTTAACT AAGAAAACAG CCAAGGCAGG CGCCATCAAG TTCAATACCG TACCGCTGAC	780
AACATGGTCT GCACGGAAT GAACCGTCGC TGCTGCGTGG ATGATAGAGA AAACACTACC	840
AACCAATCCT GCTACAAGCA AGGATAGCCA TGGAGTTGCT GCTCCAAAT GTTCTGCAA	900
TTCAAGGTTA AAGACAACTC CAGAAAAGGC ACCCATAACC ATAATTCCTT CAAGGCCAAC	960
GTTTACCACA CCACCACGTT CAGAGAAAAC ACCACCGATA CTTGTAAAGA TGAGAGGTGC	1020
TGAGTAAATC AGCATAGAAG ACACCAAGAG GGGGAGCAAG GTTATAATAG ACATCTTTAC	1080
TTACCTCCTT TAACCTGTTT TTTCGGTTTG ACAAAGCGTT CGATAAGGTA ATGAACACTG	1140
ACAAAGAAGA TAATAGACGC TGTTACAATG CTGACAAGCT CAGATGGTAC CTGCGCCGCA	1200
TTCATACCAG GAGCCCCAAC TTGGAGAACG CCAAATAGGA AGGCTGCAAA GAGTATACCA	1260
ATTGGTGAGT TGGCCGCAAG CAAACTAACC GCCATTCCTG TAAATCCGAT AGCTAATGAC	1320
GAACCTTGAA CATAGACGTT CTGGAAGGTT CCCAAACCTT CAACAGCTCC ACCAAGACCT	1380
GCCAAGGCAC CTGAAATAAT CATAGATAGG ATAATAGTCC GCTTGGCAGA AATACCAGCA	1440
TATTCTGAAG CATGTGGATT AAGACCAACT GCACGGATTT CAAAACCAAG AGTTGTTTTTC	1500
TTGAGCATGA ACCAAATAAC TGCAACGGCA ATGATGGCAA AGAAAATACC AATATTCATC	1560
CGTGAGTTAC CAGTCAACTC AGCCAACCAA GGTGTCTGAT AGGTTGCATT AGCCCCAACA	1620

563

CGAATGGTCG AATCTGTACT TTGCATGAAG TCTTTAGGGA AAGCATGGAT AAAGGCATTC	1680
CCTACATACA AGACAATGTA GTTCATCATG ATGGTTACAA TAACCTCTGA CGTCCCTAGA	1740
TAGGCCCTAA GAATACCTGG AATCGCTCCG ACAATCCCAC CAGCAATCAA GGCAATCACG	1800
ATGGTTGCTA GAATCATCAA GGGACGGGGC ATATCTGGAT GCGACAGGGC AAACCAACCA	1860
CTGAGAATCC AACCTGCCAA AGCCTGACCA GGAAGTCCGA CGTTAAAGAA ACCAGCTCGA	1920
CTGGCAACGG CAAAACCAAG ACCAATCAAG ACCAGAGGAC CCATAGCACG GAAGATTCT	1980
CCAATCCCAC GCAGACTGCC AAAGGCTGTA TAGAACAATT CTTCGTAGCC CCAATAGCA	2040
TCATAACCGA AGATCCACAT GACAATGGCT CCGAGTAAAA TTCTAGGAA TACAGAAATC	2100
AAGGGAACCG AAATTTGTG TAATTTTTTA GACATCACTC TTCTCCTTTC CCAAGTTTCC	2160
ACCAGCCATC AAGACACCAA GTTCTTGTTT ATTGGTTGTT TCTGGTGATA CAATACCTTG	2220
AATCTTACCA TCGTGGATAA CGGCAATACG GTCTGAGACG TTTAAAATCT CATCCAATTC	2280
AAAGCTGACA ACAAGGACAG CCTTGCCATT ATCACGCTCT TCAATCAAGC GTTGTGGAT	2340
ATACTCAATG GCACCGACAT CCAACCCACG AGTTGGCTGG CTAACGATAA GGAGATCAGG	2400
ATCTCGATCA ATTTCACGAG CAATAATTGC TTTTGTGTA TTTCTCCTG AGAGTGCAGC	2460
TGCAGGAAT AATTCACTGG CAGCGCGAAC ATCAAACCTCT TCCATCAGCT TTTTAGCATA	2520
AGAAGTAATA TTTGAATAAT TCAAAATTCC ATTTTACTA TGTGGTTCTT TATAGTAGGT	2580
TTGAAGGGCA ATATTTTCAG ATATCATCAT TTCCAAAATC AAGCCATCAC GGTGACGGTC	2640
TTCTGGAACG TGCCCAACAC TTAGTCTGT AATCTGACGT GGGTGCAAGC CTACAATTGA	2700
ATCTCCTTT AGCTCAATGC TACCAGATTC AACCTTACGA AGACCTGTAA TGGCTTGAAT	2760
CAGTTCAGAC TGACCATTTC CATCAATCCC CGCAATACCA ACAATCTCTC CAGCACGAAC	2820
ATCCAAGGAC AGATTTTTAA CAGCTGGAAC ACCACGGTTT TCATTGACCA CCAAATCTTT	2880
GATAGACAAA ACCACTTCTT TTGGTTTGA GGTGTGCTTC TCTGTTTTAA AGGAAACAGA	2940
ACGTCCTACC ATCATTTCAG CCAAATCAGC ATTGGTAGCC CCTGCAATTT CAACGGTTTC	3000
AATTGATTTC CCACGACGGA TAACTGTAAC ACGGTCAGAA ACTGCTCGAA TTTCATCCAA	3060
TTTGTGGGTA ATCAAGATAA TTGATTTTCC TTCTTTGACA AGATTTTCA TAATAGCCAT	3120
CAACTCATCA ATTTCTGATG GAGTCAAAAC AGCCGTGGT TCGTCAAAGA TAAGGATATC	3180
AGCCCCCGA TAAAGTGTTT TTAAAATTTC TACACGTGTG TGGGCTCCAA CTGAGATATC	3240
TGCTACCTTG GCAGAAGGGT CAACAGCTAA GCCATAACGT TCAGAAAGAG CCTTGATTTC	3300
TTTGCTAGCT CCAGCGATAT CTAGCACACC ATTTTGTGTC AATTCACTAC CTAAAATGAT	3360

564

GT'TTTCAGCC	ACTGTGAAGG	CTTCAACCAA	CATAAAGTGC	TGGTGAACCA	TCCCGATTCC	3420
CAAGCTAGCT	GCTTTAGATG	GGGAGTCGAG	ATTGACAAC	TGACCGTTGA	CCGCGATTTC	3480
ACCACTAGTT	GGTTCAGAA	GGCCTGCTAA	CATGTTCAAT	AGCGTGGACT	TACCAGCCCC	3540
ATTTTCTCCT	AAAAGTGCAT	GAATTTCAAC	TTTTCGTAGG	TGCAAGTTGA	TTTGTCTGTT	3600
GGCAACAAAT	CCACCAACAA	CCTTGGTAAT	ATCACGCATC	TCAATGACAT	TTTCGTGTGC	3660
CATGTGCTCT	TCCTTTCAGA	GTCTTATTTT	ATTTCATAAA	AACTTGCTAG	TTTGTCTAGT	3720
AGCAAGCTTT	ACTTAGACAA	AATGACTTTG	TCTCAACTCT	TAAAAAAGCG	GCCCTTGGCC	3780
GCTTCCTAAG	AAATGACTTC	CATCCATTAT	TTTTCAGGAA	CTTTTACGCT	TCCATCAAGG	3840
ATTTTAGCTT	TTGCATCTTC	GACAGCTTTT	TTACCTTCTT	CTGAAAGGTT	TGTTACTGCC	3900
AAGTCAACCC	CTTTATCCTT	CAATGAGTAA	ACGATCACTT	GACCGCCAGG	GAATTCTCCT	3960
CTTTCTGCCT	TGTTAGAAAT	ATCTTTTACA	GTTGTACCAA	CTTGTTTCAA	AGTAGATACA	4020
AGAACAAAGT	TTGATTCTTT	GCCATCTTTA	GAAGTGTATT	TACCTTCTGC	TTCTTGGTCA	4080
CGATCAACAC	CGATAACCCA	AACTTTTTC	TTTTCAGGAC	GGCTTTCGTT	GAGAGATTTT	4140
GCCTCTGCAA	AGACACCTGC	ACCTGTACCA	CCAGCTACTT	GGTAAACAA	ATCTGCACCG	4200
GCTGCGTATT	GTGCGGCTGC	AATTGTTTTA	CCTTTAGCCG	CATCACCAAA	TGAACCAGCG	4260
TAGTCAACTT	GGACTTTGAT	AGATGGGTCT	ACTGACGCAA	CACCAGCCTT	GAATCCTGCT	4320
TCAAAACGAG	AGATAACTTC	AGATTCGATA	CCACCTACAA	AACCAACTTG	TTTTGTCTTA	4380
GTTGTTTTTG	CTGCAGCCAC	ACCTGCAAGg	TAACCTGACT	CATTATCAGC	GAAAGTTACG	4440
CTCGCAACAT	TCTTTTGGTC	TTTAATCACA	TCATCAATCA	AGACATAGTT	CAAGTCAGTG	4500
TGTTCTTTTG	CTGCATCTTT	AACTGCATTA	TTAAGGGCAA	AACCAACACC	GAAGATTAGG	4560
TTGTAACCTC	CAGCCGCTTG	TTGCAAGTTG	TTAGCGTAGT	CAGCTTCACT	TGTTGATTGG	4620
AAGTAAGTGA	AACCGTTATC	TTTTGAAAGA	TTGTGTCTTT	TACCCCAAGC	CTGCAAACCT	4680
TCCCAAGCTG	ATTGGTTGAA	TGATTTGTCA	TCAACACCAC	CAGTATCAGT	GACGATTGCT	4740
GCTTTTGTCT	TCACATCAGA	AGATGAAGCT	GCGTTACGAG	AAGAGCGGTT	ACCACATGCA	4800
GCAAGTCCAA	CTGCTGCCAC	TGCAACTAGG	CCAAGACCTA	GCCATTGTTT	CTTGTTCATT	4860
ACTGAACCTC	CTAAATAAGA	TGTGCAACGA	TGTTGCAAGT	ATGGATTGGT	TGGCCACAAG	4920
GACCGTGCCA	CTCAGAGAGC	GACTCAGACT	AGTTTAAAGT	TGTAAAAGAG	TATGGAAGTA	4980
ATTCCCCGAC	CGTCATCTCG	ACCGTCGATT	TATCTTTTGC	GACTAAGGTC	ACTTTTAGAT	5040
CTTGTTCAAA	AAATTCAGCC	ATCACTTGGC	GACAAGCACC	ACATGGCGAG	ATCGGTTTTT	5100
CAGTTTGACC	ATAGACAATC	AATTCTGAAA	ATTCTCTTTG	GCCTTCAGAT	ATAGCCTTAA	5160

565

AAATAGCTGT TCTCTCACCG CAATTGGTCA AAGGATAGCT AGCATTTTCA ATATTCACTC	5220
CCGTGTAAAC ACTTCCGTCT TTAGCTACTA AACTGCTCC GATAGGAAAG TGAGAATAGG	5280
GGACATAGGC ATGTTTGCTG GTTTC AATTG CCAGTTCAAT CAACTCAGTA GTCGCCATCT	5340
GCCAATTCTC CTTTTAAAT AGCTACCCCA GCTGACGTTT CGATACGGGT CGCACCTGCT	5400
TCGACAAAGG CAAGAGCATC TGCATAAGAA CGAGCTCCAC CGGCGGCCTT GACACCCATA	5460
TCAGATCCAA CTGTTTCACG CATTAATGTA ACATCTGCTA TCGTAGCACC ACCAGTTGAA	5520
AAGCCAGTAG ATGTTTTGAC AAAGTCAGCC CCAGCTTTTT GGGCCAATTG GCAACAACA	5580
ACTTTTTCTT GGTCTGTGAG AAGGCAAGCT TCAATAATGA CTTTCACTAA CTTATCACCA	5640
CTTGCTTCCA CTAAGTGCAG AATATCTGAC TCAACCAAGG CTAAATTACC TGATTTGAGA	5700
GCTCCAACAT TGATCACCAT ATCAATCTCA TCTGCACCAT TTTGGATAGC TTTCTTTGTC	5760
TCAAATGCTT TCACGGCTGA AGTGTGTGCT CCCAAAGGGA AACCTACTAC TGTGCAAACC	5820
TTAACATCTG TGCTTCAAG TCCTTTTTTA GCATGTTCAA CCCAGGTCGG ATTAACGCAA	5880
ACACTGGCAA AGTCATACTC TCTAGCCTCA GACAACAAAC TATCAATTG TTTTCTCTT	5940
GCATCTTGTT TTAAAAGCGT ATGATCTATA TATTTATTTA ATTCATTTT GGTTCCTT	6000
CCATTTAGGA GATGATTCTT ACAATTTTAC GGATTTTTTT CACTTCATCA CTTATTTTAA	6060
CACATTTTGT GAAATCTGTA ACTAGTTGAG GTGGAATTTT TTCATTTGTG TATACTTTTG	6120
CAACAATTTC ACCCTTTTGA ACGGAGTCTC CAATCTTCTT TTCAAAAACA ATTCTCTGTT	6180
CATAGTCCAA GGCATCAGAC TTAAGTGCAC GACCAGCACC CAGCCTCATG GCATAAAGAC	6240
CAAAGTCCAT AGCTGGAAGA GCTGAAATGA CACCCGTTTC CTGAGCAGGG ATTTCCACCA	6300
CATGAGCTAC ATTTACAGGA CGATAGAGGT CTTCCAAGTC TCCACCTTGG GCTTGCACCA	6360
TTTCTTCAAA CTAGCCAGT GCTTGACCAT TCTCAAGATG TTGGTGAATC TCTTCAACAG	6420
TTTTGTAAAC ATTTGCCAAA CCAAGCATAA TTTGAGCCAA TTCACAAATA AAGTGGGTAA	6480
TATCCTGACG TCCTTGACCT TGCAAAATCT CCAATGCTTC AAGGATTTCC AGACGATTTC	6540
CAATCGCTCG TCCCAAAGGC TGGCTCATAT CCGTAATCAC TGCTACTGTC TTCCGTCCAA	6600
CAACCTTACC AAGATCTACC ATAGTTTGAG CCAACTCACG CGCCTCATCA ACCGTCTTCA	6660
TGAAGGCACC CTCACCGACA GTCACGTCTA GCAAAATAGC ATCCGCCCCT GCCGCAATTT	6720
TCTTGCTCAT CACCGAATC GCAATCAAAG GAATCGTGTC GACAGTTGCG GTCACATCAC	6780
GAAGGGCATA GAGAAGCTTA TCTGCTTTGA CCAGCTGGTC TGATTGCCCA ATGACAGATA	6840
CTCCAATATC CTGAACCTGA CGAATAAAAT CCTCTTGACT ACCTTCTACT TGATAGCCCT	6900

566

TAATGGACTC CAATTTATCA ATTGTTCCGC CTGTATGGCC AAGACCACGA CCACTCATTT	6960
TTGCTACAGG CACACCGAAG CTAGCAACAA GAGGAGCTAA AATCAAGGTT ACCTTATCGC	7020
CGACACCACC AGTAGAATGC TTGTCAACTT TCACACCATC AATGGCTGAC AGGTCAAACCT	7080
CTTGCCCAGT CTTAACCATA TTCATCGTTA AATCAGAGAT TTCTCGAGTC GTCATTCCCTT	7140
TAAAATAAAC AGCCATAGCA AAGGCAGACA TCTGATAATC AGGAACAGTT CCTGATACAT	7200
AGCCTTCTAT CAGCCATTCA ATTTCACTTG AAGTCAGTTC TTGACCGTCT CGTTTTTTTT	7260
GGATTAAATC AACTGCTCTC ATTCTTTTAC ACTTCTAAGG ATATAGTATC CCTTGTCTTT	7320
TTTAAGGATT TCACAATTGC CAAACACATC TTCCATCTTA GACTTGGCAC TTGGAGCTCC	7380
TTGTTTTTTC TGGATGACGA TGGTCAAATC TCCACCAATT TCCAAGAAAT CTTTACTTTT	7440
CTCGATGATT TCATGAACGA CTTGCTTGCC CGCACGGATA GGAGGATTGG AAATGACATG	7500
GTCAAATCGC CCTTGAACCTC TTGCATAAAT ATTAGATTGA AATATCGTCG CTTTTCGATT	7560
ATTTTTTTCA GCATTTCTCT GAGCTAAATC CAGGGCACGA GTGTTAATAT CAACCATGGT	7620
CGCCTGAACT CCGTAAACCT TGACCAAGGA CAAACCTAAT GGACCATAAC CACAGCCTAC	7680
ATCTAGGACT GTCTCTCCTT GGTGACATC CAGACACTTG AGCAAGAGTT GACTTCCAAA	7740
GTCAACCATT TTCTTGCTAA AAACACCCGC ATCTGTCAAA AAAGTCATTT TTTCTCCAA	7800
CAAGTCCACT CTCAACTCAT GAATGTCGTG AGCAGCGTCA GGATTTTCTG CATAGTACAT	7860
TTTACTCATG ACACTATTTT ACCATAATTT GACTCAAATT GTAAATCGTT TACAAATGA	7920
TAATAAAACG AAAAAAGCCG AAGAAAGCAA GTCACGAAGC CATTTTCTTC AATCTCTTTC	7980
AACACTTATA AATAATAAAC CATTTAGAAC TATAAATATC ACAGTCCAGA TAAAAACAAA	8040
AAGTTTATCA TCTATAATCA GGCAGATTAT TATTTCTATT GCTTAACCTT AAAATACTTT	8100
ATTATCAACA AAATTCCTAA CAAAATGTTT AGATAAAAGC CCAACTGATA CGTTTATGTC	8160
AGGATTTCCA AACTTGTTCA AAGTCGTATC AAATCTTCTA GTGACATGTG GAAGAAATAA	8220
CCCTCTGTCG CAATCCGTAG GACTAAAAAG CAATAACTAC CCGCAGCAAT CCATTTCTGC	8280
CATCGTTTTT TAGTAAGAAA GCAATTAAGA ACGAACAAAT AAAGACAGCT GTTACAATAG	8340
CATGTTCCAT CAAAAAGTA AAACCGTAAT AGGTTTCCAC AAAGCATCTA CCATTATCTG	8400
CATTGGTTCC TTTTATAAAA GGTAAAGCAA AACTTAAAT AAAACAGAGT TCCAATATGT	8460
AACGTTTTAA GATTTTCATA GTACACCTCC TATAAGTTGT GAACTAAAAA GCCCCCTTTA	8520
TAAGCTTATA AATCAGTAGA ATCTATCTCC TATTTTCATCA ATAAATGAT CACTTATACT	8580
ATATACCATT GACTTACCAC ATTCAAGAAA CCGCTTTATT TTTTGTAGCTT TTTATGGTAT	8640
GATAGACAAA ATATCTAGGG GAAAACAAAT GACCAACGAA TTTTACATT TTGAAAAAAT	8700

567

CAGCCGCCAG ACTTGGCAAT CTTTACATCG AAAGACAACA CCTCCTTTGA CAGAAGAAGA	8760
ATTGGAATCT ATCAAGAGTT TTAATGACCA AATCAGTCTC CAAGACGTTA CAGATATCTA	8820
TCTCCCCTTG GCTCATTGTA TTCAGATTGA CAAGCGAACT AAGGAAGATT TAGCCTTTTC	8880
AAAAGGAATT TTCCTCCA	8898

(2) INFORMATION FOR SEQ ID NO: 70:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13188 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

TATCTTAACG aGGATTGGGT TTATCGTCAG TCTTATTGCC CTAATTGTGG GAACAATCCC	60
TTAAATCATT TTGAAAATAA TCGGCCTGTA GCAGATTTTT ACTGTAATCA TTGTAGTGAG	120
GAGTTTGAAC TAAAGAGCAA AAAAGGAAAT TTTTCATCAA CAATCAATGA TGGTGCTTAT	180
GCAACGATGA TGAAGCGTGT GCAGGCAGAT AATAATCCTA ATTTCTTTTTT TTAACTTAC	240
ACAAAAAATT TTGAGGTAAA TAACTTTCTT GTCCTTCCGA AGCAATTTGT TACACCGAAA	300
TCGATTATTC AAAGAAAACC ACTTGCACCA ACTGCTAGAC GAGCAGGTTG GATTGGTTGT	360
AACATTGATT TATCACAAGT ACCTTCTAAA GGAAGGATAT TTCTTGTGCA AGATGGACAA	420
GTTAGAGATC CAGAAAAAGT TACAAAAGAA TTAAAGCAAG GTTTATTTTTT AAGGAAGAGC	480
TCTCTGTCAT CAAGAGGTTG GACAATAGAA ATTCTAAATT GTATAGATAA GATAGAGGGT	540
TCAGAATTGA CCCTTGAAGA TATGTATCGT TTTGAAAGTG ACCTAAAAAA TATCTTTGTT	600
AAGAACAATC ATATCAAAGA AAAGATTAGG CAACAGCTTC AAATATTAAG AGACAAAGAA	660
ATAATAGAAT TTAAAGGTAG AGGAAAGTAT CGGAAATTAT GAAAACGAAA CAACTTGTG	720
CATCAGAAGA GGTGTATGAT TTCTTAAAAG TCATCTGGCC TGATTATGAA ACTGAAAGCC	780
GTTACGATAA CCTAAGTTTA ATCGTCTGTA CCTTATCAGA TCCCGATTGT GTGAGATGGT	840
TATCTGAAAA TATGAAATTT GGTGACGAAA AACAAC TAGC TTTGATGAAG GAAAAATATG	900
GGTGGGAAGT AGGAGATAAA TTGCCAGAGT GGCTACATAG CTCCTATCAT AGATTATTGT	960
TAATAGGTGA ATTATTGGAA AGCAATCTAA AACTGAAAA GTATACAGTA GAAATTACAG	1020
AAACTTTATC ACGTTTAGTA AGTATAGAGG CTGAAAATCC AGATGAAGCC GAACGACTTG	1080
TAAAGAGAAA GTATAAGAGT TGTGAAATTG TTCTTGATGC AGATGATTTT CAGGACTATG	1140

568

ACACTAGCAT ATATGAATAG GTAGATGTTT TTATTTTGTG AACAAAAAAG AGGCTCGCAC	1200
CTCTTTTCT TATTTCTTTT TATGATTTAA TACGGCATTG AGGACAATAG CGAGTAGGCT	1260
GGCTACGACG ATTCCGTTTG AGAAGAACAT TTGGAAGGCT GTCGGCATGC TGACAAAGAG	1320
ATTACTGTTG TTGAGACCGA CACCTGCAGC GATTGAAACA GCTGCGATAA GGAAGTTGTG	1380
TTCAATTGTTA GCAAAGTCAA CACGGGCGAG GATTTGCATC CCTTGAATTG ATACAAAACC	1440
AAACATTACC AGCATGGCAC CACCGAGGAC GGAGCTTGGA ATGATTTGGG CAAGGGCGCC	1500
AAACTTAGGA AGCAGTCCAA GGAGAACCAG GAAACCAGCT GCGTAGTAGA TTGGCAGGCG	1560
TTTTTTGATG CCTGACAATT TAACCAAACC AACGTTTTGT GAAAATCCGG TGTAAGGGAA	1620
GGTGTTAAAG ATTCCTCCGA GAAGTACGGC CAAACCTTCT GCGCGGTATC CGTTGCGAAG	1680
GCGCGTGCTG TCGATTGGAT CCTTGTGAT ATCAGACAAG GCCAGATAAA CACCAGTTGA	1740
CTCAACCATA GACACCGTTG CGATGATACA CATCATGACA ATAGATGAGA TTTCAAAGGT	1800
TGGCATCCCA AAGTAGAGTG GAGTTGGGAC ATGGACAAGT GGAGCTACCG CAACAGGAGA	1860
GAAGTCCACC AAGCCCATAG TAGCAGCAAT GGCAGTTCCA ACAACCAGAC CAATCAAAAT	1920
AGAGATAGAC TTGATAAATC CTTTGGTAAA GATGTTGATC AAGAGGATAA TCAGAACAGT	1980
AATAGCTGCA AGCAAGAGAC TTTGACCAGT TGGCTCTGGA ACGTTATTTC CCATATTTCC	2040
AATAGCGACA GGGATCAAGG TTAAACCAAT CGTGGTAATA ACAGATCCTG TTACGATAGA	2100
TGGGAAGAGA TTGGCTACTT TTGAGAAGAT GCCTGAAACA AGAACCACGT AAATCCCAGA	2160
TGCGATAAGG GCACCAAACA TAGCGCCACT ACCATGGCTT TGCCCAATCA TAATCAAGGG	2220
AGCGACCGAC TGGAAATGCAA CTCCAAGAAC GACTGGGAGT CCAATCCCAA AGTATTTGTT	2280
GAGTTGGAGT TGGAGGAAGG TTGCCACCCC ACACATGAAG ATATCTGTAG AAATCAGGTA	2340
GGTCAACTGC TCAGCTGAAT AGCCAAGGGC TGTCGCAATC ATGATGGGAA CCAGGATAGA	2400
TCCTGAGTAC ATGGCTAGTA AGTGCTGCAA GCCAAGAACG GCTGCTTGCG AGTGTTTTTC	2460
TTGAGTTTGC ATTAGAGATC TGCCTCCTTA AATACGACTT GACCATTTTC AAAACAATCC	2520
AAACGAGCAA GTGATAGGAC AGGGTAGCCT GCTTTTTCOA GCAAATCACG ACCATCTTGG	2580
AAGGATTTCT CAATCACGAT ACCGATAGCT TGGACTGTGG CACCGGCCCTG TTCGATGATT	2640
TGAATCAAGC CTTTAGCAGC TTGGCCATTA GCAAGGAAAT CGTCGATAAT CAAAACCTTG	2700
TCCTCTGGTG AGAGGAATTT TTCAGCGATA GAAACGGTGC TGGTACCTG CTTGGTAAAG	2760
GAGTAGACTT GAGCAGTTAA GATGCCTTCG TTCATGGTGA GTTCTTAGC TTTTTTGGCG	2820
AAAATCATGG GAACGTTTAA GGCTTCAGCT GTAAAAACGG CTGGGGCAAT ACCCGACGCT	2880
TCAATGGTTA CGACCTTGGT AATGCCAGTA GTAGCAAATT TTTCCGCAA AACCTTACCA	2940

569

ATCTCTCGCA	TCAAGCTAAA	GTCAACTTGG	TGGGTAAAA	AGGAATCTAC	CTTGAGGATG	3000
TTATCACCCA	AGATATGCCC	ATCCTTGAGG	ATGCGCTCTT	CTAATAATTT	CATAAGACCT	3060
CCTAAAGTCT	AAAAGTTAAT	TACTTGTTG	TTTAAATATT	TCTATAGTGA	TCCCTTTTGC	3120
TAATACTATA	TATTTGATAA	AACTATTACG	AGCGAAGCGA	GTCTTATCAA	ATATTTCCCG	3180
TTGTAGTGGT	ATCATAGACA	ATAATCTTGT	TATTGTCTAT	GACGGGATTT	TTGAGAGTAA	3240
AATAGTTCGG	GGAACATTTT	TAGCCTAAGC	CTAGAAATGA	AAGAGCTAGG	GGCTCAAAAA	3300
TTAGGGATGA	AATTCCTGG	ATTCTGAAA	TTATTCACAG	GATAATTTCA	CCTCCCGTCC	3360
GCACTAATTA	AGGGAAATAT	TAAAAAAGA	CCTACTTAAT	CTCTAAGTAA	GTCCCTTAAA	3420
TAGACATGGC	AAAAACGGCC	ATATCTCACT	GCTGACTTAC	TTATTGTTAG	GTGTTCCGGC	3480
ACCTTG TAGA	AACGTCGTGC	CAATTCACGA	CATAAACAAG	TAAAACGATA	TTCAATTTTA	3540
AATAGGCTTG	AGCCAATGTT	TTTATTTTAC	ACTAAATAAC	TTTAGAAATC	AACTATTTTG	3600
TTAGTGTTTT	GGTTTAAAA	ACGAACAAAA	AGAAGAGAGG	GTGAACAAAA	ACTCCATTGT	3660
AAGCTAACAG	TTATACTAAA	TGAAAATCAA	AGAGCAAAC	AGGAAGCTAT	CCACAACCTC	3720
AAAACACTGT	TTTGAGGTG	TGGATAGAAT	TGACAGAGCC	AGTATCATAT	ACCTACGGTA	3780
AGGCGACGTT	GACGTGGCTT	GAAGAGATTT	TCGAAGAGTA	TTAGAAGATT	TTTCCATCAT	3840
AAAAGGCATA	CTATCAAGCT	TTTAGACACC	TGACAATATG	CCTTTTCTTA	ACTTTAAAGA	3900
CTTTTCCCAA	TTTTTATTAT	TCTACTCGCT	AAATCTTAAA	AAATAGCCAT	CTGGATCCAA	3960
AACTGCAAAT	TTATGAGGAT	AGATATAGGG	ATCACTGACA	CGAACTTTC	TTTTGGTCAA	4020
GGGACGATAA	ATAGGATAGT	TTGCCTTCAT	CACTCTTTAA	TAGAGTTTTG	AAACATCCTT	4080
TATGCCAAAG	GAGAGATTGA	CTCCACGACC	AAAGGGATAG	GTCAGTTCAG	CTAGTTGATC	4140
CTTTGTTCCT	TCCTCTAACA	TTAGTTGACA	CTCTTCAAGA	GAAAGAGAAA	GTTTTCTTCT	4200
GGACGTGGGT	ATTCAATCCT	AAAACCCAGT	AAACCACAGT	AGAAGGACCG	GGACTGTTCCG	4260
ATATTCGATA	CAAGCAACTC	GGGAATGACC	GCATTGTAGT	CCATATAGAA	AATCCTTACA	4320
AGTCAATTTT	CAAGACAATC	GGTGATGGT	CTTGGCGAGC	ACCTGAGTCA	ATCATATCAG	4380
ATTTAGTGAC	CTTGTCAGCG	ATACGGTTAC	TTGTGAGCCA	GTAGTCGATT	CTCCAGCCTG	4440
TATTGTTGAT	TTTAGAAGTT	TTGCTGCGTT	GTGCCCACCA	AGTG TAGCGT	TCAGGAACAT	4500
CGCCATGAAC	ATGGCGGAAG	GTGTCTGTAA	ATCCAGTTGC	CAAAAGGTTG	GTAAATCCAG	4560
CACGTTCCCT	GTCAGTAAAT	CCAGGTGAAC	GGCGGTTGCT	AGCAGGATTT	GCAAGGTCGA	4620
TTTCATTGTG	GGCTACGTTG	TAGTCACCGG	TCGCAAGGAC	TGGTTTTTCT	TTGTCTAGTT	4680

570					
CAGCCAAATA	CTCAGCATAT	TTGGCATCCC	AGACTTGGCG	TTCTTCCAAG	CGTTTGAGAC 4740
CGTCACCAGC	GTTTGGAGTG	TAAACTTGGG	TTACGAAAAA	TGCATCAAAT	TCTAGAGTGA 4800
TGATACGACC	TTCCAAGTCC	ATGGTAGAAG	GGGCACCGAT	TTCTGGGAAG	CTGATAGTAG 4860
GTGTAAGTTC	TTTCTTATAA	AGGAACATGG	TTCCAGCATA	GCCTTTACGG	GCAGGCTCTT 4920
GGGAAGAGCG	CCACGTGTTT	TCGTAGCCTG	GGAAGAGTTC	TTCTAAAATT	TCCACGTGTT 4980
TCTTTGTAGG	TCCTTTGGCA	GAAAGCTTGG	TTTCTTGGAT	AGCAATGATA	TCAGCATTTT 5040
CAGCGACCAA	GGTTTGTAGG	ACTTCTTGGG	ACAATTTGGC	ACGAGCTGAG	TCACTAGTTA 5100
GGGCAGCGTT	TAGGGAATCA	ATATTCCATG	AGATAAGTTT	CATAAAGTTA	CCTTTTTCAT 5160
TCAGATTATA	GATTTTATTA	TACCAAAAAA	AGATCTATTT	CCCCAACGTA	TGGTTTGAAA 5220
AATTACTCTC	TTTCGTTTAT	AATTAAGAAT	GATTTTATGA	AAGGGAGTGA	AAATACATGA 5280
AATTCTACTC	TTATGACTAT	GTACTCAGCC	AAATCGGTCA	GCAAAATGGT	ATCATGGTTG 5340
GCTTTGGGAT	TGTTCTATTA	GCTGTGACAG	TTTTTTTTCG	TTTCAAGGCA	TACCATAATA 5400
AAAAGGGAAG	CGAATTTCGT	GAGTTGGTCA	TGATTTCAGA	TCTGGCCTTA	TTTAGCTCTG 5460
CTTTTGGTCA	GCATCACGAC	TTATCAAAAC	AATCAAGTTT	CTAACAATAA	ATTTCAAACCT 5520
TCACTTCATT	TCATCGAGGT	TGTTTCCAAA	GATTTGTGAG	TAGACAAGTC	AGAAGTCTAT 5580
GTTAATACTT	CCACAAACAC	AGATGGCGCA	CTTATCAAGG	TGGGAGATCG	CTATTATCGT 5640
GCCCTAAATG	GAAGTGAGCC	AGACAAGTAC	CTGTTAGAGA	AAGTCGAATT	GTATAAGACA 5700
GACGCAATTG	AACTGGTGGA	TGTGAACAAA	TGACACTTAA	TTATATCGAA	ATTTTAATCA 5760
AACTGGTCTT	GACTCTCAAA	TAGCTCAACA	ACAATGTTCA	CTTTGTGAAA	CGTTTGATTG 5820
ATGGTAAGCC	AACTCTCCTT	ATCAAAAATG	GGAATATTGA	CCCAGAAGCC	TGTCGTTTCAG 5880
TTGGTTTGTC	TGCATCGGAT	GTATCCCTCA	AACTTCGTAG	CCAAGGGATT	TTCCAGATGA 5940
AGCAAGTCAA	ACGAGCTGTG	CAAGAGCAAA	ATGGGCAACT	CATCGTTGTG	CAAATGGGAG 6000
ATGAAAATCC	TAAGTATCCA	GTTGTGACTG	ACGGTGTGAT	TCAAGTAGAT	GTCTTGGAAT 6060
CGATTGGTCG	TAGCGAAGAG	TGGTTGCTTG	ATAACCTCAG	TAAACAAGGG	CATGACAATG 6120
TAGCCAATAT	CTTTATTGCT	GAATATGACA	AGGGTGCTGT	TACAGTCGTA	ACTTATGAAT 6180
AAGAAAAACC	TGGGGTCTTG	TACTCTTCGA	AAATCTCTTC	AAACCGCGTC	AACGTCGCCT 6240
TGCCGTATGT	AGGTTACTGA	CTTCGTCAGT	TCTATCTACA	ACCTCAAAGC	AGTGCTTTGA 6300
GCAGCCTGCG	GCTAGTTTCC	TAGTTTGCTC	TTTGATTTTC	ATTGAGTATT	GGCCTCAGGT 6360
TTCCATTTCG	AATCAGAAAG	GGATTTTATG	TCCATTATTC	AAAAACTTTG	GTGGTTTTTC 6420
AAGTTAGAAA	AACGCCGTTA	TCTAGTCGGA	ATTGTGGCCC	TGATCTTGGT	TTCCGTCCTC 6480

571

AATCTCATTC CTCCTATGGT TATGGGGCGG GTCATTGATG CCATCACATC GGGGCAATTA	6540
ACCCAGCAGG ACCTCCTTCT TAGCCTATTT TACTTGCTAC TTGCAGCCTT TGGTATGTAC	6600
TATTTGCGCT ATGTGTGGCG TATGTATATC CTTGGGACCT CTTATTGCTT GGGACAGATC	6660
ATGCGGTCTC GCTTGTTTAA GCATTTTACA AAAATGTCGT CAGCCTTTTA TCAAACCTAT	6720
CGGACGGGTG ATCTGATGGC ACACGCAACC AATGATATCA ATGCCTTGAC TCGTTTAGCA	6780
GGTGGCGGTG TCATGTCTGC GGTGGATGCC TCTATCACGG CTCTGGTGAC TTTGTTGACC	6840
ATGCTCTTTA GCATCTCATG GCAGATGACT CTTGTTGCCA TTCTCCCCCT ACCTTTTCATG	6900
GCCTATACGA CTAGTCGCCT AGGGAGAAAG ACTCATAAGG CCTTTGGCGA ATCCCAAGCT	6960
GCTTTTCTTG AACTCAATAA CAAGGTACAG GAGTCCGTAT CAGGTATCAA AGTGACCAAG	7020
TCTTTCGGTT ATCAGGCAGA CGAGTTGAAG TCTTTTCAGG CAGTCAATGA ATTAACCTTC	7080
CAAAAGAACC TGCAAACCAT GAAATATGAT AGTCTCTTTG ACCCTATGGT TCTCTTGTTT	7140
GTTGGTTCGT CCTATGTTTT AACGCTTTTG GTTGGCTCCT TGATGGTTCA GGAAGGGCAG	7200
ATTACAGTTG GGAATCTAGT CACCTTTATC AGCTATTTGG ATATGCTGGT CTGGCCTCTT	7260
CTGGCCATCG GTTTCCTCTT TAATACTACT CAGCGAGGGA AGGTTTCTTA CCAGCGGATT	7320
GAAAATCTTT TGTCTCAGGA ATCTCCTGTA CAAGACCTG AGTTTCCTCT GGATGGTATT	7380
GAAAATGGGC GTTTGGAGTA TGCCATTGAC AGCTTTGCTT TTGAAAATGA GGAAACACTG	7440
ACGGATATTC ACTTTAGTTT GGCAAAAGGG CAAACACTGG GCTTGGTTGG GCAGACAGGC	7500
TCTGGGAAAA CGTCCTTAAT CAAGCTCCTC TTGCGTGAAT ACGATGTGGA TAAGGGTGCC	7560
ATTTATCTAA ACGGTCACGA TATTCGGGAC TATCGTCTGA CAGACCTTCG CAGTCTCATG	7620
GGCTATGTTT CTCAGGACCA GTTCTTTTTT GCGACTTCAA TCCTAGACAA TATCCGCTTT	7680
GGCAATCCTA ACTTGCCCCC TTCAGCGGTC GAGGAAGCTA CTAAGCTAGC CCGGGTTTAC	7740
CAAGATATTG TAGACATGCC TCAAGGATTT GATACGCTGA TTGGTGAAAA AGGAGTCACT	7800
CTTCTGGTG GTCAAAAGCA ACGGTTGGCT ATGAGTCGGG CTATGATTTT AGACCCTGAT	7860
ATCTTGATTT TGGATGATTC CTTATCCGCC GTAGATGCCA AGACAGAGTA TGCGATTATC	7920
GACAACCTCA AGGAGATGCG AAAGGACAAG ACAACCATTA TCACTGCCCC TCGCCTCAGT	7980
GCTGTTGTCC ATGCAGATTT TATTTTAGTT CTACAAAATG GTCAAATTAT CGAACGAGGC	8040
ACGCACGAAG ACTTGCTAGC TTTGGATGGC TGGTATGCCC AAACCTACCA GTCTCAGCAG	8100
TTGGAATGA AAGGAGAAGA AGATGCAGAA TAAACAAGAA CAATGGACTG TATTGAAGCG	8160
CTTGATGTCT TATCTCAAGC CTTATGGACT CCTGACCTTT TTGGCACTCA GTTTTCTCCT	8220

572

AGCGACGACG	GTCATTAAAA	GTGTCATACC	CCTCGTGGCT	TCCCACTTTA	TCGACCAGTA	8280
TCTCAGCAAT	CTTAACCAAC	TAGCCGTTAC	CGTTTTGCTG	GTCTACTATG	GTCTCTACAT	8340
CCTACAAACT	GTAGTTCAGT	ATGTCGGCAA	TCTTCTCTTT	GCGCGCGTGT	CTTACAGTAT	8400
TGTTAGGGAT	ATTCGTCGGG	ATGCCCTTGC	CAATATGGAG	AAACTGGGCA	TGTCTTACTT	8460
TGACAAGACG	CCAGCAGGTT	CTATCGTTTC	TCGTTTGACC	AACGATACCG	AGACGATTAG	8520
TGATATGTTT	TCTGGGATTT	TATCCAGCTT	TATCTCAGCA	GTTTTTATCT	TTCTGACAAC	8580
CCTTTATACC	ATGTTGGTGC	TGGATTTTCG	TTTGACGGCT	TTAGTCTTGC	TCTTTCTTCC	8640
TTTGATTTTC	CTTTTGGTCA	ATCTCTATCG	AAAAAAGTCA	GTGAAAATCA	TCGAGAAAAC	8700
CAGAAGTCTC	TTGTCAGATA	TCAATAGTAA	GCTGGCAGAG	AATATCGAGG	GAATCAGGAT	8760
TATTTCAGGCC	TTAATCAAG	AGAAGCGCCT	GCAGGCAGAA	TTTGATGAAA	TCAACCAAGA	8820
ACACTTGGTG	TACGCCAACC	GTTCTGTAGC	CTTGGATGCC	CTCTTTTGA	GACCTGCCAT	8880
GAGTTTGCTG	AAACTTCTAG	GCTATGCAGT	CTTGATGGCC	TACTTTGGCT	ACCGTGGTTT	8940
TTCTATCGGG	ATAACGGTCG	GGACCATGTA	TGCCTTTATC	CAGTACATCA	ACCGCCTTTT	9000
TGACCCCTTG	ATTGAGGTGA	CGCAAACTT	TTCAACTCTG	CAAACGGCTA	TGGTTTCTGC	9060
AGGTCGTGTC	TTTGCCCTGA	TAGACGAGAG	GACCTATGAA	CCTCTTCAAG	AAAATGGGCA	9120
AGCCAAAGTC	CAAGAAGGCA	ATATCCGTTT	TGAACATGTG	TGTTTCTCAT	ATGACGGTAA	9180
ACATCCGATT	CTGGATGACA	TTTCTTTCTC	TGTTAATAAG	GGTGAAACCA	TTGCCTTTGT	9240
AGGTCATACA	GGTTCAGGGA	AATCGTCTAT	TATCAATGTC	CTCATGCGCT	TTTATGAATT	9300
CCAGTCAGGG	AGAGTTCTCT	TGGATGATGT	GGATATCAGG	GATTTTCAGTC	AAGAAGAGCT	9360
GAGAAAAAAC	ATCGGTTTGG	TCTTGCAGGA	ACCCTTCCTC	TATCATGGAA	CTATTAAGTC	9420
CAATATCGCC	ATGTACCAAG	AAACCAGTGA	TGAGCAGGTT	CAGGCTGCGG	CAGCCTTTGT	9480
GGATGCAGAT	TCCTTTTATC	AAGAACTTCC	TCAGGGGTAC	GACTCCCCTG	TTTCCGAGCG	9540
TGGTTCGAGC	TTCTCTACTG	GGCAACGCCA	GCTTCTTGCC	TTTGCTAGAA	CAGTCGCCAG	9600
CCAGCCTAAA	ATCCTGATTT	TGGATGAAGC	GACAGCCAAT	ATTGACTCTG	AAACAGAAAG	9660
CTTGGTCAA	GCTTCTCTGG	CGAAGATGAG	ACAGGGCCGA	ACAACTATTG	CTATCGCTCA	9720
CCGCCTTTCT	ACTATTCAAG	ATGCCAACTG	CATCTATGTC	TTGGATAAGG	GACGCATTAT	9780
CGAGAGTGGA	ACCCATGAGG	AACTCTTGGC	TCTGGGAGGA	ACCTATCACA	AGATGTATAG	9840
TTTGCAGGCA	GGGGCCATGG	CCGATACTCT	TTGAAAATCT	CTTTAAACCA	TGTCAGCTTT	9900
ATCTGCAATC	TCAAAGCTGT	ACTTTGATTT	TCATTGAGTA	CTAGAAGGAA	ATCCTTCAAA	9960
TTACAGATTT	CTTTCACCGC	CTTTTCCATT	TGTGGTATA	ATGAAAAATG	TTGACAAATA	10020

573

GTATAATAAA AACAAAGGAG AACAGCATGC TGAAATGGGA AGACTTGCCT GTGGAAATGA	10080
AATCAAGCGA GGTGAGTCT TACTACCAGC TTGTCTCTAA AAGGAAGGGT TCGCTGATTT	10140
TCAAGCGTTG CTTGGACTGG GTTTTGGCCT TGGTCTTACT GGTCTGACC TCTCCCATCT	10200
TTCTCATCTT GAGCATTTGG ATCAAGTTGG ATAGCAAAGG GCCAGTGATT TACAAGCAAG	10260
AGCGTGTGAC CCAGTACAAC CGTCGGTTCA AGATTTGGA GTTTCGTACC ATGGTGACGG	10320
ATGCGGATAA AAAAGGAAGT CTGGTGACTT CTGCTAACGA TAGCCGCATT ACCAAGGTTG	10380
GAAATTTTCAT CCGACGTGTC CGTTTGACG AACTGCCTCA GTTGGTCAAT GTCCTTAAAG	10440
GTGAGATGTC CTTGTTCGGT ACACGACCTG AAGTGCCACG TTATACAGAG CAGTATAGCC	10500
CTGAAATGAT GGCAACCTTG CTCTTGCAAG CAGGGATTAC CTCTCCAGCC AGCATCAACT	10560
ACAAGGATGA GGACACAATT ATCAGTCAAA TGACGGAGAA AGGTCTGTCA GTTGATCAGG	10620
CCTATGTGGA GCATGTTCTT CCTGAAAAGA TGCCTATAA CCTCGCCTAT CTCCGAGAGT	10680
TTAGTTTCTT TGGGGACATC AAAATCATGT TTCAAACCGT GTTTGAGGTA CTAAAATAAA	10740
GTAGTCATAA GAAATGAGT ACAGATAAAA GGAGCAAATC AATGCCAAAT TACAATATTC	10800
CATTTTCACC GCCTGATATC ACAGAAGCAG AAATTACTGA AGTAGTGGAT ACCCTGCGTT	10860
CTGGTTGGAT CACAACAGGT CCTAAAACAA AAGAACTGGA GCGCCGCTTG TCTCTTTACA	10920
CACAGACACC TAAGACTGTT TGTCTCAACT CTGCGACAGC CGCTCTGGAG TTGATTTTAC	10980
GCGTTTTGGA AGTGGGACCT GGTGATGAAG TCATCGTTCC AGCCATGACC TATACGGCTT	11040
CATGTAGTGT CATTACGCAC GTGGGAGCAA CCCCTGTCAT GGTGGATATC CAAGCAGATA	11100
CGTTTGAGAT GGAATATGAC CTGCTTGAGC AAGCTATCAC TGAGAAAACCT AAGGTGATTA	11160
TTCCAGTAGA GCTCGCAGG ATTGTTTTCG ATTATGACCG TTTGTTCCAA GTCGTGGAGA	11220
AAAAACGTGA CTTCTTTACC GCTTCAAGCA AGTGGCAAAA GGCCTTTAAC CGTATTGTCA	11280
TTGTCTCTGA TAGTGCCAC GCTTTGGGAT CTATTTATAA AGGACAACCT TCTGGTTCTA	11340
TCGCTGACTT TACTTCCTTC TCATTCCATG CAGTTAAGAA CTTTACAACG GCAGAAGGTG	11400
GAAGTGCAC TTGGAAAGCC AATCCAGTGA TTGATGACGA AGAGATGTAC AAGGAATTCC	11460
AAATCCTTTC CCTTCACGGG CAAACTAAGG ATGCTCTTGC CAAGATGCAA CTGGGGTCAT	11520
GGGAATACGA TATCGTTACA CCAGCCTATA AGTGCAACAT GACCGATATC ATGGCTTCAC	11580
TTGGTTTGGT ACAATTGGAC CGCTATCCAA GTTTGTTGCA ACGCCGTAAG GACATTGTGG	11640
ACCGCTATGA TAGTGGTTTT GCAGGTTCTC GCATCCATCC TTTGGCACAC AAGACTGAAA	11700
CTGTCGAATC TTCACGCCAC CTCTACATCA CCCGTGTAGA AGGAGCAAGC CTAGAAGAAC	11760

574

GCAACCTCAT	CATCCAAGAA	TTGGCTAAAG	CAGGAATTGC	AAGTAATGTT	CACTACAAAC	11820
CGCTTCCTCT	CTTGACAGCC	TATAAGAATC	TTGGATTGGA	TATGACGAAC	TATCCTAAGG	11880
CCTATGCCTT	CTTTGAGAAT	GAAATTACCC	TCCCTCTTCA	TACTAAATTA	AGCGATGAAG	11940
AAGTAGACTA	TATCATTGAG	ACTTTCAAAA	CAGTTTCTGA	AAAAGTGCTA	ACTTTATCAA	12000
AAAAATGACA	AACTACAGTC	AAGCGAAAGT	GATCCTGCCC	CTAAAAAGTC	TAATTGAGTG	12060
TAAAAACTGT	TGTTTTCAAT	TGATAATAGT	TTACACCTGT	AGTTGAGGCC	CCTTCTCCT	12120
CAGAGAGAGA	ATTTTATAG	GATTTTCCTT	TCTTGTGGGA	GTCCCGTGGT	TTGAAATAAG	12180
ATGTGAGCAA	TTTAGTGTAG	CATTTAGAAT	CCTTACTAGA	CATCATTTAG	AAAATCTAGT	12240
GTCTTGTTCT	AGTTTTCAAT	TCACCTATT	TTTTGAAAGA	CGTGAGTTTC	CATGAGTGAG	12300
ATTGTGAAA	CTCGGTCTT	TTTTGTGTTT	CAGAATATTG	TTCAAATTT	TGTGCCTGTC	12360
TTTCATGTTT	TAGTCATTCT	TTTGCATGAT	AGAATTTATA	GCATGTTGAT	ATTATAATAA	12420
TACAAATATT	CTATATGTTT	AGTGATGCTT	GCTATACATT	ATTAGATCTC	CTGCGAGACA	12480
ATCTATAAAA	CACTTGTCTA	CGATTACCTA	TATGCCCTAT	TCCAGTATTT	TAGAAGCACT	12540
GCATCTATTT	TTATCGAGGT	TAAATCTAGC	TTTATAGAA	GGTCTATTTA	AGAAATATAT	12600
TGTAGTGTTT	TAGTTTCAAT	CCGCCATATG	AGCGATATTC	AGGTAAATAT	CCCTGGCGAA	12660
TGCTTGATG	ACAAGGTATT	TGTTCTTTCA	TTTATAATTT	ACAACATATC	AACAAATTTA	12720
AATATAGTAA	ATGGGATATT	TTATATTCAA	GCTAAGAAAG	ATAGCATCAC	TTTTGAATGG	12780
AAGGCTAAAG	AGCAAACCTAG	GAAGTTGGCC	ATAGATAGCT	CAAACCCCTG	CTTTGAGGTT	12840
GTAGATATAG	TAAAAATGAAA	TGAGAATAGG	ACAAATTGAT	CGGGACAGTC	AAATCGATTT	12900
CTAACAATGT	TTTAGAAGTA	GAGGTGTA	ATTTTAGTTT	CAGTCTACTA	TAGAACTGAC	12960
CAAGTCAGTA	ACCTAGACTT	AGGGCAAGGC	GGCACTGACC	TAGTTTGAAG	AGATTTCCGA	13020
AGAGTATAAA	TTTAAATATT	TTCTTGTTGTT	ATTCCTTGAC	AATTCAATTT	GGAAAATATA	13080
TGATAAAGAT	AATGACAGCG	GTGTCATTCT	ATCTATTTTA	AGAAAAGTAA	TAATCAATTG	13140
TTAAAAATAG	TAAAAAATT	GGAGTTCTG	ATGAAATATT	TTGTTCCG		13188

(2) INFORMATION FOR SEQ ID NO: 71:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 32768 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

575

AACGAGTGCA TCAGTCTCAG CAAGCACCAG TGCCTCGGCC TCAGCAAGCA CCAGCGCGTC	60
TGAATCCGCA TCAACAGTG CCTCAGCTTC AGCAAGTACC TCAGCATCTG AATCAGCATC	120
AACAAGTGCA TCGGCTTCAG CAAGCACAAG TGCTTCAGCC TCAGCAAGTA TCTCAGCGTC	180
TGAATCCGCA TCAACAGTG CGTCCGCTTC AGCAAGTACT AGCGCCTCAG CATCAGCGTC	240
AACAAGTGCT TCGGCTTCAG CGTCAACGAG TGCCTCTGAG TCAGCATCAA CGAGTACGTC	300
AGCCTCAGCA AGCACATCAG CTTCTGAATC TGCATCAACC AGTGCGTCAG CCTCAGCATC	360
GACAAGCGCC TCAGCTTCAG CAAGTACCAG TGCCTCAGCC TCAGCAAGTA CCAGTGCTTC	420
AGCCTCAGCG TCGACAAGTG CGTCGGCCTC AACCAAGTGCA TCTGAATCGG CATCAACCAG	480
TGCGTCAGCC TCAGCAAGTA CTAGCGCCTC AGCCTCAGCA TCAACGAGTG CGTCCGCTTC	540
AGCAAGTACT AGTGATCAG CATCAGCATC AACGAGTGCA TCGGCTTCAG CAAGTACCAG	600
CGCCTCAGCT TCAGCAAGCA CCAGTGCGTC AGCCTCAGCA AGTACCAGCG CCTCAGCCTC	660
AGCAAGCACC AGTGCCCTCAG CTTTCAGCAAG TACCAGTGCG TCAGCCTCAG CGTCGACAAG	720
TGCGTCGGCT TCAGCAAGTA CCTCAGCGTC TGAATCAGCA TCAACGAGTG CATCAGCTTC	780
AGCATCAACA AGTGCTTCAG CTTTCAGCAAG TATCTCAGCG TCTGAATCGG CATCAACGAG	840
TGCGTCCGCT TCAGCAAGTA CTAGCGCCTC AGCATCAGCG TCAACAAGTG CTTCCGCTTC	900
AGCGTCAACG AGTGCGCTCG AGTCAGCATC AACGAGTACG TCAGCCTCAG CAAGCACATC	960
AGCTTCTGAA TCTGCATCAA CCAGTGCGTC AGCCTCAGCA TCGACAAGCG CCTCAGCTTC	1020
AGCAAGTACC AGTGCGTCAG CCTCAGCAAG TACCAGTGCT TCAGCCTCAG CGTCGACAAG	1080
TGCGTCGGCC TCAACAGTG CATCTGAATC GGCATCAACC AGTGCGTCAG CCTCAGCAAG	1140
TACTAGCGCC TCAGCCTCAG CATCAACGAG TGCCTCCGCT TCAGCAAGTA CTAGTGATC	1200
AGCATCAGCA TCAACGAGTG CATCGGCTTC AGCAAGTACC AGCGCCTCAG CTTTCAGCAAG	1260
CACCAGTGCG TCAGnCTCAG CAAGTACCAG CGCCTCAGCC TCAGCAAGCA CCAGTGCCCTC	1320
AGCTTCAGCA AGTACCAGTG CGTCAGCCTC AGCGTCGACA AGTGCGTCGG CTTTCAGCAAG	1380
TACCTCAGCG TCTGAATCAG CATCAACGAG TGCATCAGCT TCAGCATCAA CAAGTGCTTC	1440
AGCTTCAGCA AGTACCAGTG CGTCGGCTTC AGCATCAACG AGTGCTTCAG TCTCAGCGTC	1500
AACCAGTGCC TCTGAATCAG CATCAACAAG TGCCCTCGGCT TCAGCAAGCA CCAGTGCGTC	1560
GGCTTCAGCA AGTACTAGTG CATCGGCTTC AGCATCGACA AGTGCGTCTG AATCGGCATC	1620
AACGAGTGCT TCGGCTTCAG CATCAACGAG TGCCTCAGCC TCAGCAAGCA CATCAGCTTC	1680
TGAATCTGCA TCAACAGTG CGTCCGCTTC AGCGTCAACC AGTGCGTCGG CTTTCAGCGTC	1740

576					
GACAAGTGCT	TCGGCTTCAG	CATCAACGAG	TGCGTCGGCC	TCAGCAAGCG	CAAGTACCTC 1800
AGCGTCAGct	TCCGCCTCAA	CCAGTGCGTC	GGCTTCAGCA	AGCACAAAGTG	CGTCAGCCTC 1860
AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG 1920
TACGTGAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA	TCAACCAGTG	CGTCAGCCTC 1980
AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAAGTGCT	TCAGCCTCAG	CGTCGACAAG 2040
TGCGTCGGCC	TCAACCAGTG	CATCTGAATC	GGCATCAACC	AGTGCGTCAG	CCTCAGCAAG 2100
TACTAGTGCA	TCAGCTTCAG	CATCAACGAG	TGCATCGGCT	TCAGCATCAA	CCAGTGCCTC 2160
GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC	AGCAAGTACC	AGTGCTTCAG	TCTCAGCATC 2220
AACAAGTGCT	TCAGCCTCAG	CATCGACAAG	TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC 2280
TGAATCAGCG	TCAACCAGTG	CTTCGGCTTC	AGCAAGTACC	AGTGCTTCAG	CTTCAGCATC 2340
AACCAGCGCC	TCGGCCTCAG	CAAGCACCTC	AGCTTCTGAA	TCGGCCTCAA	CCAGCGCCTC 2400
GGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGCGCCTCAG	CCTCAGCATC 2460
AACGAGTGCT	TCGGCTTCAG	CAAGCACAAG	CGCCTCGGGT	TCAGCATCAA	CGAGTACGTC 2520
AGCTTCAGCG	TCAACCAGTG	CTTCAGCCTC	AGCATCAACA	AGTGCGTCAG	CCTCAGCAAG 2580
TATCTCAGCG	TCTGAATCGG	CATCAACGAG	TGCGTCTGAG	TCAGCATCAA	CGAGTACGTC 2640
AGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGTGCGTCAG	CCTCAGCATC 2700
GACAAGCGCC	TCAGCTTCAG	CAAGTACCAG	TGCTTCAGCC	TCAGCGTCGA	CAAGTGCCTC 2760
GGCCTCAACC	AGTGCACTCTG	AATCGGCATC	AACCAGTGCG	TCAGCCTCAG	CAAGTACTAG 2820
TGCATCGGCT	TCAGCATCAA	CCAGTGCCTC	GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC 2880
AGCAAGTACC	AGTGCTTCAG	TCTCAGCATC	AACAAGTGCT	TCAGCCTCAG	CATCGACAAG 2940
TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC	TGAATCAGCG	TCGACAAGCG	CCTCAGCTTC 3000
AGCAAGTACC	AGTGCGTCAG	CCTCAGCGTC	GACAAGTGCG	TCAGCCTCAG	CAAGTACTAG 3060
TGCATCAGCT	TCAGCATCAA	CGAGTGCATC	GGCTTCGGCG	TCAACCAGTG	CATCAGAGTC 3120
AGCAAGTACC	AGTGCGTCag	CTTCCGCATC	AACAAGTGCC	TCGGCTTCAG	CAAGCACCAG 3180
TGCGTCGGCT	TCAGCAAGTA	CTAGCGCCTC	AGCCTCAGCC	TCAACCAGTG	CGTCAGCCTC 3240
AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCCGCTTCAG	CAAGTACTAG 3300
CGCCTCAGCC	TCAGCGTCAA	CAAGTGCATC	GGCTTCAGCG	TCAACGAGTG	CGTCTGAATC 3360
GGCATCAACG	AGTGCGTCCG	CTTCAGCAAG	TACTAGCGCC	TCAGCCTCAG	CGTCAACAAG 3420
TGCATCGGCT	TCAGCATCAA	CGAGTGCCTC	CGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC 3480
AGCGTCAACA	AGTGCATCGG	CTTCAGCGTC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG 3540

577

TGCGTCAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA	TCAACCAGTG	CGTCAGCCTC	3600
AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCG	TCAGCCTCAG	CGTCGACAAG	3660
TGCGTCGGCT	TCAGCAAGTA	CCAGTGCGTC	AGCCTCAGCA	AGTACCAGTG	CGTCAGCCTC	3720
AGCGTCGACA	AGTGCGTCGG	CCTCAACCAG	TGCATCTGAA	TCGGCATCAA	CCAGTGCGTC	3780
AGCCTCAGCA	AGTACTAGTG	CATCAGCTTC	AGCATCAACG	AGTGCATCGG	CTTCAGCATC	3840
AACCAGTGCA	TCAGAGTCAG	CAAGTACCAG	TGCGTCAGCT	TCCGCATCAA	CAAGTGCCTC	3900
GGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	AGCGTCAACA	AGTGCTTCAG	CTTCCGCGTC	3960
AACCAGCGCC	TCGGCCTCAG	CAAGTATCTC	AGCGTCTGAA	TCGGCATCAA	CAAGTGCCTC	4020
GGCTTCAGCA	TCAACGAGTG	CATCAGTCTC	AGCAAGCACC	AGTGCGTCGG	CCTCAGCAAG	4080
CACCAGCGCG	TCTGAATCCG	CATCAACCAG	TGCGTCAGCT	TCAGCAAGTA	CCTCAGCATC	4140
TGAATCAGCA	TCAACAAGTG	CCTCGGCTTC	AGCAAGCACA	AGTGCTTCAG	CCTCAGCAAG	4200
TATCTCAGCG	TCTGAATCCG	CATCAACGAG	TGCGTCCGCT	TCAGCAAGTA	CTAGCGCCTC	4260
AGCATCAGCG	TCAACAAGTG	CTTCGGCTTC	AGCGTCAACG	AGTGCGTCTG	AGTCAGCATC	4320
AACGAGTACG	TCAGCCTCAG	CAAGCACATC	AGCTTCTGAA	TCTGCATCAA	CCAGTGCGTC	4380
AGCCTCAGCA	TCGACAAGCG	CCTCAGCTTC	AGCAAGTACC	AGTGCGTCAG	CCTCAGCAAG	4440
TACCAGTGCT	TCAGCCTCAG	CGTCGACAAG	TGCGTCGGCC	TCAACCAGTG	CATCTGAATC	4500
GGCATCAACC	AGTGCGTCAG	CCTCAGCAAG	TACTAGCGCC	TCAGCCTCAG	CATCAACGAG	4560
TGCGTCCGCT	TCAGCAAGTA	CTAGTGATC	AGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	4620
AGCGTCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCG	TCAGCCTCAG	CGTCGACAAG	4680
TGCGTCGGCT	TCAGCAAGTA	CCTCAGCGTC	TGAATCAGCA	TCAACAAGTG	CGTCGGCTTC	4740
AGCATCAACG	AGTGCATCAG	CTTCAGCATC	AACAAGTGCT	TCAGCTTCAG	CAAGTACCAG	4800
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CGCATCAACA	AGTGCCCTCGG	CTTCAGCAAG	CACCAGTGCT	TCGGCTTCAG	CGTCAACGAG	4920
TGCGTCTGAG	TCAGCATCAA	CGAGTGCGTC	AGCCTCAGCA	AGCACATCAG	CTTCTGAATC	4980
TGCATCAACC	AGTGCGTCAG	CTTCCGCATC	AACAAGCGCC	TCGGCCTCAG	CAAGTACAAG	5040
TGCTTCAGCC	TCAGCATCAA	CCAGTGATC	AGCTTCAGCC	TCAACAAGTG	CTTCAGCCTC	5100
AGCGTCAACC	AGTGCCCTCGG	CTTCAGCAAG	TACCAGTGCG	TCAGCTTCAG	CAAGCACAAG	5160
TGCGTCAGCT	TCAGCATCAA	CCAGTGCTTC	GGCTTCGGCA	TCAACAAGTG	CCTCAGCATC	5220
AGCATCAACG	AGTGCGTCAG	CCTCAGCAAG	TACTAGTGCA	TCAGCATCAG	CATCAACCAG	5280

578						
TGCATCAGCC	TCAGCAAGTA	TCTCAGCGTC	TGAATCGGCA	TCAACGAGTG	CATCAGCATC	5340
AGCATCAACG	AGTGCATCGG	CTTCAGCGTC	AACCAGTGCA	TCAGTCTCAG	CAAGCACCAG	5400
TGCGTCGGCT	TCAGCATCAA	CGAGTGCCTC	AGCCTCAGCA	AGTATCTCAG	CGTCTGAATC	5460
GGCATCAACG	AGTGCCTCAG	CCTCAGCAAG	TACTAGTGCA	TCGGCTTCAG	CAAGCACCAG	5520
TGCGTCGGCT	TCAGCATCAA	CCAGTGCCTC	AGCCTCAGCA	AGTATCTCAG	CGTCTGAATC	5580
GGCATCAACG	AGTGCCTCAG	CCTCAGCAAG	TACTAGTGCA	TCAGCmTCAG	CATCAACGAG	5640
TGCATCGGCT	TCAGCAAGTA	CCAGCGCCTC	AGCTTCAGCA	AGCACCAGTG	CGTCAGCCTC	5700
AGCAAGTACC	AGCGCCTCAG	CCTCAGCAAG	CACCAGTGCC	TCAGCTTCAG	CAAGTACCAG	5760
TGCGTCAGcT	CAGCATCAAC	AAGTGCTTCA	GCTTCGGCCT	CAACAAGTGC	GTCAGCTTCA	5820
GCATCAACGA	GTGCGTCGGC	TTCAGCAAGC	ACCAGTGCCT	CGGCCTCAGC	AAGCACCAGT	5880
GCTTCAGCTT	CAGCATCAAC	AAGTGCGTCA	GCTTCAGCAA	GTACATCAGT	TTCAAATTCa	5940
GCAAACCATT	CGAACTCACA	AGTTGGAAAT	ACTTCTGGAT	CGACAGGTAA	ATCCCCAAAA	6000
GAATTGCCTA	ATACAGGTAC	TGAGTCGTCA	ATTGGATCTG	TGTTACTTGG	AGTTCTAGCA	6060
GCTGTACAG	GTATTGGATT	GGTTGCGAAA	CGCCGTAAAC	GTGATGAAGA	AGAGTAAGAC	6120
AACCTGTAAA	GTTAGGCTAA	ACTAACTCGC	GCACATAAAT	CAAGGAGAAA	ATTGCTAGTG	6180
GATGATAAAA	TAACAGTCAT	TGTACCAGTA	TACAATGTGG	AAAACATCT	GAGGAAGTGC	6240
CTAGATAGTA	TTATTACTCA	AACATATAAA	AATATTGAGA	TTGTTGTCGT	TAATGATGGT	6300
TCTACGGATG	CTTCAGGTGA	AATTTGTAAA	GAATTTTCAG	AAATGGATCA	CCGAATTCTC	6360
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GCTTTGATAT	CTGCTTGGGG	TAAACTCTAT	AAGGCAAGAT	TGTTTGAGCA	GTTGCGCTTT	6720
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AAGGTAATTT	ATTTAAATAA	AAGTCTTTAT	GCTTATCGGA	TTAGAAAAGG	TAGTTTATCA	6840
AGAGTTTGGA	CAGAAAAGTG	GATGCACGCT	TTAGTTGATG	CTATGTCTGA	ACGTATTACG	6900
CTACTAGCTA	ATATGGGTTA	TCCTCTAGAG	AAACACTTGG	CAGTTTATCG	TCAGATGTTG	6960
GAAGTCAGTC	TCGCCAACGG	TCAAGCTAGT	GGTTTATCTG	ACACAGCAAC	GTATAAAGAG	7020
TTTGAAATGA	AACAAAGGCT	TTTAAATCAG	CTATCGAGAC	AAGAGGAAAG	TGAAAAGAAA	7080

579

GCCATTGTCC	TCGCAGCAAA	CTATGGCTAT	GTAGACCAAG	TTTAAACGAC	AATCAAGTCT	7140
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TGGATTAAGC	AATTAAATAA	GCGCTTAGAG	AAGTTTGA	CAGAAATTAT	TAATTGTCGG	7260
GTAACCTCTG	AGCAAATTC	ATGTTATAAA	TCGGATATTA	GTTACACAGT	CTTTTACGC	7320
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GTAACGAAAA	ATCTGGATGA	CTTGTTTGCT	ACAGACTTAC	AAGATTATCC	TTTGGCTGCT	7440
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AATGAATGGC	ATGATAAGGT	GGATCAGGCA	GATCAGAGCA	TCTTGAATAT	GCTTTTGA	7620
CATAAATGGT	TGGAATTGGA	CTTTGATTAT	AATCATATTG	TCATTCTATA	ACAGTTTGCT	7680
GATTATCAAT	TGCCTGAGGG	TCAGGATTAT	CCTGCTATTA	TTCATCTCT	TTCTCATCGG	7740
AAACCGTGGA	AAGATTTGGC	GGCCCAAACC	TATCGTGAAG	TTGGTGGA	CTATCATGGG	7800
CTTGAATGGA	CAGAATGGG	ACAAAACCAT	CATTTACATC	CATTACAAAG	ATCTCACATC	7860
TATCCAATAA	AGGAACCTTT	CACCTGTCTA	ATCTATACTG	CCTCAGACCA	TATTGAACAA	7920
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CACTATTTGG	TAGATGTCGA	TAATGAATTG	GTAGAAACCA	GTCAAGTACT	TTTAGATATT	8100
AATCATGGCG	AAAAGACAGA	AGAAATCTC	GATCAATTTG	CTAATCTTGG	CAAGCCTATC	8160
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GAGATGCTCT	GATTTTGACG	GTTAGTGATC	AGATTGAAGA	GTTGGATTAT	TTTTTATAAA	8340
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TATATTATAG	CTGTTTGATA	CGAAATTTAT	TATAAGGAAA	TTATGTAAAT	GAATACAAAA	8580
TCTATAGTTT	TTAATGCAGA	TAATGATTAT	GTAGATAAAT	TAGAACTGC	AATTAAATCT	8640
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TGGTTTTTGA	TGATGAATAA	GCGATTGAAG	ACTATACAAT	CTGAAATCGT	TAATGTAAAG	8760
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580

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GACATCATTG TTACAGGAAG TTTAGACTAT TTATTTGATA TAGAACTAGA TGGTTATGCC	8940
TTGGCAGCAG TAGAAGATTC TTTTGGTGAT GTTCCTTCTA CCAATTTTAA CTCCGGAATG	9000
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CACATAGAAG GAAATCATAA ATGGTATGAG ATTTCTGAGT TGAAAAATGG AGATTACCT	9240
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CTGATACTTT ATCGAATACA TGGAGTGAAA AGCGTATGTA TGATGAAATT GGGGCTAGGG	10500
AAGAAAAGAT AGCTATTTTA GCAAGTTCAG ACTATGACTT GACCAATCAT ATTTTGATTT	10560
ATAAAAATAG ATTACAAAGA GTGATAGCAA AATTAGAAGA ACAAATATG CAGTTCACAG	10620

581

AGATTTACAG	AAGAATGATG	GAAAAATTGT	CTTTACTTCC	GTAGATAGTA	ATAAAAAATG	10680
AGATAGCGTA	ATATGAAACT	ACATTTAACA	AATTTATACG	GCATGGCTGG	TGATAGTACG	10740
GTATCTTAG	CTCAAAATGC	TGTTCAAAAG	ATAGCTAGTC	AACTGGGATT	TAGAGAGGTT	10800
GGTATTTATT	TTTACAACAT	TGCTTCAGAT	AGTCCTTCTG	AAATGAATAA	GCGTCTGGAT	10860
GGTATTATGG	CCAGTATCTC	TATTGGGGAT	ATTTTAGTCT	TTCAGTCTCC	AACCTGGAAT	10920
GGTTTTGAAT	TTGATCGTCT	CTTGTTTGAT	AAGCTAAAGG	ATATGCAGGT	GAAAATTATT	10980
TGCTTTATCC	ATGATGTTGT	TCCCCTCATG	TTTGATAGTA	ACTATTATCT	CATGAAAGAT	11040
TATCTGTATA	TGTATAATCT	ATCAGATGTT	TTGATAGTGC	CGTCAGAGAG	AATGAAAACA	11100
CGCCTGATGG	AAGAAGGATT	GACGACTAAG	AAGATTCTTG	TTCAAGGGAT	GTGGGATCAT	11160
CCTCATGATT	TATCCTTATA	CACCCCTGCT	TTTAAAAAAG	AACTTTTTTT	TGCTGGAAGT	11220
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AATAAAGGGG	AAGCTAGTTC	TAGTGCTAGA	AGTCTCAGCA	TCGAAGGATG	GAAAAAGAT	11340
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AAAGAGGGCT	ATTTCACTAA	AAAGTTATTG	GTAGATGCAA	TCTATCACTT	GGAATTTGAT	11700
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ATTTGTTTAG	AAGAAAAATC	ACTCGCAGCA	GTTAAAGATA	CAGATGGAAT	TACATTTAAT	12120
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ATTGAACAGA	GCATTGTTAC	AATGAAGGAA	GTTGAAGAAG	GCCGTTTCGA	GCATTTTAAT	12240
GGTGATCAAA	CGATTTTAA	TCAGGTCTTG	CAAGATGATT	GGTTAGAACT	AGGTCGAGCT	12300
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582

GCTTTTAATG	ATAAACCACT	GGTGATTCAT	TTTACGACCT	ACAGAAAACC	CTGGACTACC	12420
TTGACAGCCA	ATCGTTATCG	TGATTTATGG	TGGGAATTCC	ATGATTTGGA	GTGGAGTCAG	12480
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CGCCCTTATA	TCGATTTTGA	AGACAAGAGT	CAAGCTAAAG	CTCAATTTGA	AAAATTGAAA	13740
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GGAAATGATT	TATTCGATGA	GGCAAATTCT	ATTAAGCGAA	TTATCTGTCC	TTCTCATAGT	13860
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AAAATAAGG	TTAAATTTTC	TCATAAACAT	ACTGCAGAAC	ATAATTTCGA	CCAAGATATT	14100
GAATTTATTG	ATGATGAAAC	CTATAACAGT	CAGATTGTTG	CACGAATATT	AAACTAGACT	14160

583

ATTTAAAATA AATGATAAGG ATTTAAAATG AGAAATACCA AACGCGCTGT AGTATTTGCA	14220
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584

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GTGATTGTTC	TGAGGAGCTG	ACCTCTCTAT	CACAGTATAC	GAATGTAACA	GTATATCAAA	16380
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TCGCTTTTGA	TATCACACGT	AAAAGTATGG	ATGATGGACT	CTATGACGGT	ATTTTTTCTG	16560
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585

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586						
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587

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588						
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589

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590

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591

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GCTCGGTTGC	GTCCGTCTCC	TCTGGATAAA	TAGTATTTGA	AGCGCTGGAG	GATATCTTTT	28860
AACTTTCTCT	CCACCAGCGT	GTGGTAGTGC	TGGATTTCTT	CTTCTCGTGA	AGGCATATAG	28920
AGATTAACAA	GCAAGGCAAA	TCCTGTACCA	ATAGCAAAGA	GAAGGAATTC	ATTGACTAGA	28980
AGGTCTGGAG	AGGTTGACTC	TTGAACCAAG	AGATGGCTAA	CCAAAACAGT	GCTTGGTGTG	29040
ATGCCAATTT	CCCAGCCCAT	CTTGTAGGCT	AAAGGAACGT	AGAAGGCCAG	ATAGAGGCCG	29100
AGACTCCAGA	TATGAAATCC	GCTCAAGTGA	AAAGCTAGAA	CACCGATAGC	CAGAGCTAGA	29160
AGCATAGAAA	AAAGACGATT	GCGAGCCAGT	TTTAAAGTAC	TTCTACGCGT	ATCAGATAGG	29220
CTCAAGAGAG	CGATAATTCC	AGCCGAAACT	GCTGACGAAA	GATTGAGAAA	ATAAGCAAGC	29280
AGGCAGGCAA	GACAGGTAGC	TAAGATGAGC	TTGGTCGTAC	GTTGGCTAAT	AGACATAAGA	29340
ATTTCCCTAAT	AAGTTAGAAT	AAAAGCGTAA	AAGACAAGAC	ATGAGCAGGC	TTGCCTTGAT	29400
GAGTTATTTT	TTACGGGTTG	CTGCGTATTC	GGCAACGCG	GTAAAGAGGA	CATCTGTAGA	29460
AGAGTTAAGG	GCTGTTTCAC	ATGAGTCTTG	GATGACACCA	ATCACAAAAC	CAACCCCAAC	29520
AATTTGTATG	GCAATATCGT	TAGAAATACC	GAAAAGGCTA	CAAGCAACTG	GGATAAGAAG	29580
GAGGGAACCT	CCGGCAATAC	CTGAAGCATC	ACAGGATGAG	ATAGCTGCTA	CCACACTGAG	29640
GACAAAGGCT	GTGGCAAAGT	CAACAGGAAT	TCCAAGAGTG	TTAACTGCAG	CAAGGGTCAA	29700
AAGGTTAATG	GTAATCGCTA	CTCCAGCCAT	ATTGATAGTA	GAACCGAGTG	GGATAGAAAC	29760
AGAATAGGTA	TCTGGGTGTA	GTCCAAGGTC	ATGGCAGAGT	TTTATGTTGA	CAGGAATGTT	29820
AGTCGCAGAA	CTACGAGTGA	AAAAGGCTGT	CACACCGCTG	ACACGGAGGC	AGTTCCAAAC	29880
TAGAGGGTAA	GGATTGCGTC	TCATAAAGAA	GAAGGCAATC	AAAGGGTTGA	CCACAGGGGC	29940
AACAAAAAGC	ATAGTCGTTA	CTAATAGAAC	CAATAAAATA	CCGTAGTTGG	CAAGGCTTCC	30000
GACTCCCTTG	TCAGAAATGG	TTTTAAAAAC	AAGACCAAGG	ATTCCAAATG	GAGCCAGATT	30060

592

GATGATCCAT	TCGACAATTT	TAGAAGTCAC	GTCAGCGATA	GTTTTTAGCA	ATTCTTGACT	30120
ATTTTTACTG	GCTTCTCTCA	TAGCGATTCC	AAAAATGACT	GCCCAAGATA	AGATTCTAAT	30180
ATAGTTAGCA	GTAAGCAGGG	CGTTGACTGG	GTTGTCAACC	AGTTTGAGCA	AGAGGTTGCT	30240
GAGAACCTGC	CCAATCCCAT	CTGGTGGTGC	AATTTCACTA	TTGGCACTAT	TTGGGGTAAT	30300
TTCAATAGGG	ACGATGAAAT	TTGCTAGTAC	AGCTACAAGA	GCAGCGGCGA	AAGTCCCTAT	30360
CATAGGATAT	ACAAGAAAAC	AACAGTTTTC	ATATTGCTAT	CTGTGCCCTT	TTGATGTTGG	30420
GAAAGGGCAT	TGGCAACGAG	AGCAAAGACT	AGGATAGGAG	CAACAGCTTT	TAGACCTCCA	30480
ACGAATAAAT	CCTCGAGTAG	CCCAATCCCT	GAGAGATTAG	GAAGGGTCAG	TCCTAGGATT	30540
CCCCACAAAG	CATACCAATC	AAGATACGCT	TGACAAGGCT	TGCCTTATTC	CAAGCATGAA	30600
TGATTCTTTT	CATAATAATC	TCCTTTTGTG	TGAGTGATTA	TGATTATAGT	ATAAATGATA	30660
GACAAAATCA	AGAATTTTCT	GTCTATTTTT	TGAATATTTA	TGGAGAATGA	GACTGATGAA	30720
AATATGGTAT	AATGAAATAA	AGGAGTTTTA	TATGCAAAAA	TTTATTCAGG	CTTATATTGA	30780
AAAGCTAGAT	GTGACAACCA	TTATCGAGAA	TATTCTAACC	AAGGTCATTT	CTCTTTTACT	30840
GCTTTTAATT	GTATTTTATA	TTGCTAAAAA	AATGCTTCAT	ACCATGGTGC	AGAGAATTGT	30900
CAAACCTTCT	CTAAAAATGT	CTCGTCATGA	TGTTGGACGC	CAAAAAACCA	TCTCACGTTT	30960
ACTAGAAAAT	GTGTTTAATT	ATACGCTATA	TTTCTTTTTA	CTCTACTGCA	TTTTGTGCGAT	31020
TTTAGGTTTG	CCAGTTTCTA	GTTTGCTGGC	TGGAGCTGGT	ATTGCTGGGG	TAGCGATTGG	31080
TATGGGAGCC	CAAGGCTTTC	TGTCTGATGT	CATCAATGGC	TTTTTCATCC	TCTTTGAACG	31140
TCAACTGGAT	GTGGGAGATG	AGGTCGTTCT	GACAAATGGA	CCGATTACTG	TATCGGGTAA	31200
GGTTGTCACT	GTGGGAATTC	GTACGACACA	GCTTCGTAGC	GAGGAGCAAG	CCCTTCACTT	31260
TGTCCCTAAC	CGAAATATCA	CAGTTGTTAG	CAATTCTCTA	CGCACAGACT	AGACCTGTTA	31320
TTTTAAGTAA	TTTGTGGTAC	AATAGAGGGA	GTTTAATAAG	GAGAAAAGAT	GGTTTTAGAA	31380
AAGCAGTTGG	GCAATGGTTG	TACCTGGATA	GACCTAGACC	TAGGAAAGTT	GAATAAACTA	31440
GAAGACCTTT	CTGAAATTTA	CGGTTTGGAC	AAGGAAACCA	TTGAATACGC	ACTGGATAGA	31500
AACGAGCGCG	CCCACATGGA	CTACCACCGT	GAAAGTGAGA	CGGTTACCTT	TATCTATAAT	31560
GTCTTAGACG	TAAAAAAGGA	CAAGGCCTAC	TATGAGACTT	TTCCCATGAC	CTTTATTGTC	31620
GAGCATCGTC	GCCTGATTAC	CATTAGTAAT	ACCAAGAACG	CCTATGTCAT	TGAACAGATG	31680
ACTCGTTATC	TGGAGAACCA	TGACACGCTT	TCGATTTATA	AGTTTCTCTT	TGCCAGTCTG	31740
GAAATCATCA	GCAATGCCTA	CTATCCTGTC	ATTGAGCAGA	TGGACAAGAG	TAGGGATGAG	31800
GTCAATGACC	TCTTGCGCCA	GCGAACTACC	AAGAAAAACC	TCTTTGTCTT	GTCTGATTTG	31860

593

GAGACTGGTA	TGGTTTATCT	GACGGCAGCT	GCCAAACAAA	ATCGGATTTT	GTTAGAGCAT	31920
ATTCAAGGTC	ATGCCCTTGT	TCGTAGTTTT	GATGAGATTG	AGAGAGAACA	GTTTGATGAT	31980
GCCATGATTG	AGGCTCATCA	GCTGGTATCC	ATGACAGACC	TAATCTCTCA	GATTTTACAG	32040
CAGCTTTCAG	CCTCTTACAA	CAATATTCTA	AACAATAATC	TGAATGACAA	TTTGACAACC	32100
TTGACTATCA	TTTCAGTCTT	GCTAGCTGTT	TTGGCAGTCG	TGACAGGCTT	TTTCGGAATG	32160
AATGTTCCCT	TACCTTTAAC	AGATGAGCCC	CATGCTTGGC	TCTATATCAG	TTTGGCTAGT	32220
GCAGGTTTGT	GGATTGTTTT	ATCCTTGTTA	CTAAGGAAAA	TTGCGAAAAA	AAGTTAAGAA	32280
AAGGAGCCAG	AATGGCGATT	GAAAATTATA	TACCAGATTT	TGCTGTGGAA	GCAGTCTATG	32340
ATCTGACAGT	CCCAAGCCTG	CAGGCGCAGG	GAATAAAGGC	TGTTTTGGTC	GATTTGGATA	32400
ATACCCTCAT	TGCTTGGAAC	AACCCTGATG	GAACGCCAGA	GATGAAGCAA	TGGCTACATG	32460
ACCTTCGGGA	CGCGGGTATT	GGCATTATCG	TAGTGTCAAA	TAACACCAA	AAACGCGTTC	32520
AACGAGCAGT	TGAGAAATTT	GGGATTGATT	ACGTTTACTG	GGCCTTGAAG	CCCTTCACAT	32580
TTGGTATTGA	CCGTGCTATG	AAGGAATTCC	ACTATGACAA	AAAGGAAGTG	GTCATGGTTG	32640
GTGACCAACT	CATGACAGAT	ATACGAGCAG	CCCACCGTGC	AGGGATTCCG	TCAATTTTAG	32700
TCAAACCCCT	GGTCCAACAT	GACTCAATCA	AAACGCAGAT	TAACCGAACT	CGTGAGCGTC	32760
GTGTTATG						32768

(2) INFORMATION FOR SEQ ID NO: 72:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14872 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

CCAGTCACAA	AGAAATTGAG	CGCGTTCAGc	TGAGGATGCA	CTATGATGCA	AGCTACATTT	60
CATTTGATGG	GATATTAAGA	AAGGAGATTT	TCATGACACT	TTTAGATGTA	AAACACGTTC	120
AAAAAATTTA	TAAACACGCT	TTTCAGGGCA	ACCAAGTAGA	AGCCCTCAAG	GATATTCACT	180
TTACCGTAGA	AAAGGGTGAC	TACGTTGCCA	TCATGGGTGA	GTCTGGTTCT	GGTAAATCAA	240
CTCTTCTCAA	TATTCTAGCT	ATGTTGGATA	AACCAAGTCG	TGGTCAGGTT	TACTTGAATG	300
GAAGTGACAC	CGCAACTATT	AAAAATTCAC	AGGCTTCTAG	TTTCCGGCGT	GAAAAGCTAG	360
GATTTGTCTT	CCAAGACTTT	AACCTGCTAG	ATACTCTGTC	TGTTAAGGAC	AATATCTTGC	420

594

TTCCGCTTGT	CTTGTCAGA	AGACCTATA	CGGAGATGAT	GAAGAAATTG	GTGGTGACAG	480
CTGAGAATCT	GGGTATTAA	CAATTGCAAG	AGAAGTACCC	TTACGAGATT	TCTGGTGGTC	540
AGAAACAGCG	TGTAGCAGTA	GCCCCGCGCA	TCATCACAGA	ACCTGAAATT	CTCCTTGCGG	600
ACGAGCCAAC	AGGAGCCCTT	GATTCCAAGT	CATCTGCAGC	CTTACTTGAT	GTCTTTAATG	660
AAATCAATGA	GCGTGGGCAA	ACCATCCTCA	TGGTAACCCA	CTCAACAGCA	GCTGCTAGCA	720
GGGCCAAGCG	TGTTCTCTTT	ATCAAAGACG	GCATTCTTTA	CAACCAAATC	TACCGTGGAG	780
AGAAGACAGA	GCGTCAGATG	TTCCAAGAAA	TCTCTGATAC	CTTGACTGTC	ATGGCAAGCG	840
AGGTGAATTA	GTATGTTTCG	ATTAACCAAT	AAGTTAGCGG	TATCGAACTT	GATTAAAAAC	900
CGCAAATCT	ACTATCCCTT	TGCACTGGCT	GTCTCTTGG	CAGTCACCAT	CACCTATCTC	960
TTTTACTCCC	TAACCTTCAA	TCCAAAGATT	GCGGAAATCC	GTGGAGGAAC	CACCATTCAA	1020
GCAACACTTG	GATTTGGTAT	GTTTGTCGTT	ACCCTTGCGT	CACcATTATC	GTCTCTATG	1080
CCAATAGTTT	TGTCATGAAA	AACCGTTCCA	AGGAACTGGG	TATATATGGC	ATGTTAGGCT	1140
TGGAGAAGCG	CCATCTAATC	AGTATGACCT	TTAAGGAGTT	AGTGGTATTT	GGGATTCTAA	1200
CTGTTGGAGC	GGGTATCGGT	ATTGGAGCCT	TGTTTGACAA	GTTAATTTTC	GCTTTCCTGC	1260
TCAAACATAA	GAAACTGAAG	GTTGAGCTGG	TTGCTACCTT	CCAAATGAAT	GTGTGCATTG	1320
CAGTACTTGT	TGTCTTTGGA	TTGATTTTCC	TAGGCCTCAT	GTTCTTGAAT	GCTCTTCGAA	1380
TCGCCCCGAT	GAATGCCCTC	CAGCTCTCGC	GTGAGAAAGC	AAGCGGAGAG	AAAAGAGGTC	1440
GCTTCCTACC	TCTCCAAACG	ATTCTTGATT	CCATAAGTTT	AGGGATTGGC	TATTATCTTG	1500
CCCTTACGGT	AACCGATCCT	CTTACAGCCC	TAACAACCTT	CTTCCTAGCT	GTTTTGCTGG	1560
TTATCTTTGG	TACTTATCTA	TTGTTTAATG	CAGGGATTAC	AGTCTTCCTA	CAAATCTTAA	1620
AGAAAAACAA	GAAATACTAT	TACCAACCTA	ATAACCTCAT	ATCTGTTTCC	AACTTGATTT	1680
TCCGTATGAA	GAAAAATGCG	GTGAGACTAG	CAACCATCGC	TATTTTGTC	ACAATGGTTT	1740
TGGTAACCAT	GTCAGCAGCG	ACAAGCATTT	TCAATTCCGC	AGAAAGCTTT	AAAAAAGTTC	1800
TAAATCCTCA	TGATTTTGGG	GTTTCAGGGC	AAAATGTTGA	AAAAGAAGAT	TTGGACAAAC	1860
TCTTGAGCCA	GTTTGCAAGT	GACAAAGGTT	ATAGTGTC	AGAGAAAGAA	GTAATTCGTT	1920
ACAGTAACTT	TGGTATTGCA	AATCAAGAAG	GAACCAAGTT	AACTATTTTT	GAAAAAGGAC	1980
AAAACCGTGT	CCAACCCACA	ACAGTTTTC	TGGTATTG	CCAAAAAGAT	TATGAAAATA	2040
TGACTGGTCA	AAAAGTGTCT	CTATCAGGAA	ATGAGGTCGG	TCTCTTTGCC	AAAAATGACG	2100
GACTGAAAGG	ACAGAAAGCT	CTAACTCTAA	ATGATCATCA	ATTTTCTGTC	AAAGAAGAAT	2160
TTAATAAAGA	TTTCATTGTG	AACCATGTTC	CAAATAAGTT	TAATATCTTG	ACTACTGATT	2220

595

ACAATTACCT	TGTTGTTCCCT	GATTTACAAG	CCTTTTGGGA	TCAATTCCCA	GATTCGGCTA	2280
TCTATAATCA	GTTTTACGGT	GGTATGAATG	TAAATGTCAG	TGAAGAAGAA	CAACTCAAGG	2340
TCGCTGAGGA	GTATGAAAAC	TACCTCAATC	AATTTAATGC	TCAATTAGAC	ACAGAAGGTA	2400
GCTATGTTTA	TGGTAGCAAT	CTAGCAGATG	CTAGTTCTCA	GATGAGTGCC	CTCTTTGGTG	2460
GTGTCTTCTT	TATCGGTATT	TTCCATATCCA	TTATCTTTAT	GGTCGGAAC	GTTCTGGTCA	2520
TCTACTACAA	ACAAATTTCT	GAAGGCTACG	AAGACCGTGA	ACGCTTTATT	ATCTTGCAGA	2580
AAGTCGGTTT	GGACCAAAAG	CAAATCAAGC	AAACCATCAA	CAAACAGGTT	TTAACTGTTT	2640
TCTTCCTTCC	TTTGCTCTTT	GCCTTCATAC	ATCTCGCCTT	TGCCTACCAT	ATGCTTAGCC	2700
TGATTTTAAA	AGTGATTGGT	GTAATGGATA	CGACTATGAT	GTTGATTGTG	ACCTTGTCTA	2760
TCTGCGCTAT	CTTCCTCATC	GCCTATGTGC	TGATTTTCAT	GATTACTTCA	AGAAGTTATC	2820
GCAAGATTGT	GCAAAATGTAA	AAAAGATACC	TCGACTTCAA	AATCGAGGTA	TTTCTTGTAT	2880
TCTAAATGCT	GAAAAGTTGT	CCGAGCAGGA	AGGTAACCTC	CATGGTCAAG	AGACCAATAG	2940
CAAGGTTCCT	AATCATAGCT	GTTTTGGTTG	GGGCTTTTCC	AAGTCTAGCA	CTTGTGTAAC	3000
CAGTGAGAAG	AAGGGCCACA	CCGACAATAA	GGACGGTAGC	AGGGATGCGG	TAATCACTTG	3060
GAAAAATGGT	CACTGACAGC	ATTGGAGGCA	AACCTCTAAG	GAAAAAGGCA	ACGAAGCTAG	3120
AAATGGCAGC	GTGCCAAGGA	TTGGTAAATT	CTTCATACTC	AATCCCATAT	TTTTCCTCTA	3180
CCAGAGCCTT	GAGTGGATTT	TTAAGAAAGA	TCTTATTGGT	CAAGAGTTGG	GCAGAAGTTT	3240
TGAATTCCTC	ATTTTGGATA	TAAGCAGCAT	AGAGGGATTT	TTTGGCTAGT	TCCCTATCTT	3300
GGTCTAGCAA	GAGTTTTTCT	CGCGAAACGG	CAGCTTCCTC	GGTATCTTTT	GGAGTTGAAA	3360
CGGATACATA	TTCTCCACCA	GCCATTGAAA	AGGCACCAGC	TAAGATAGCC	GTAAAACCTG	3420
ATAAAAAGAT	AATCCAGATA	TTGGTCGTGG	CACTGGCAAC	TCCGATAACC	ACACCAGCAA	3480
TGGAAATAAT	TCCATCGTTA	GCATCAAGAA	CACCCGCACG	CAGGATATTT	AAACGACCTG	3540
CAAAATTTGA	ATCAATTTCT	TGATTTGTTT	CTGACGCTAA	ATTTCAAGTT	CAAGTTAGCC	3600
ATCAAGAAGT	CTTCTCTGGG	TGACTTGTAG	TCCAAGCATT	TTTTAGGATA	GTTGTTAATC	3660
CACTTTTTCG	TGAATGCGAC	TTCTTTGGGA	GTCATTTTCT	TGGTTCCCTT	AGGTAACCAT	3720
CTACGAATGA	GCCTGTTGTG	ATTCTCATTA	GTTCCCTTTT	CCCAAGAGGC	ATAGGGATGT	3780
GCATAATAAA	TGTGCTCCTC	AGAAAATACA	TTAGACAAGC	GATTGAATTC	CGTTCCATTA	3840
TCTGCCGTGA	TGGAAAGAAT	CTTGTGTTGT	TTTAAGATGA	GTTTTAGAGC	CTGATTGACC	3900
ACATCAGCAC	TTTATTTTGG	AATCAATCGG	ATGATCTGAT	GTCTACTTTT	TCGATCCGTC	3960

596

AAGACAAGCA AGCAGTAGTT TTTCGCTCTC GTAAGTAGAA CTGTATCAAT CTCATAATGC	4020
CCATTCTCCA AGCGAAAATT GATAGCTTCA AGCCGCTGTT CGATGGATTG ACCAGCAGGT	4080
TTAAAGTTGG TGCTGGCCTG TTTCTTAAGC GCTTTTCCTT TTCTAGGGTA AAGCAGATCC	4140
TGTTTGCTTA ACCCCAATTT TCCATGATGA ATCCAATAGT AAATGGTTGA AATTCCCACG	4200
TTAACCCCTT TAGCCATCAC CATCATTTCA GGCGAAAATT TTTGGTTATG ATAGTGGAGA	4260
ATCTTTTCCT TAGTTCCCTT GGTCAAGCTT GATTTCTTGA CCGAGCGCTT GCGATTGTTT	4320
TCATAAGACT GTTGAGCATA GTCGGCAGAA TAAACCTCTT TGAAGCGCCC TTTTCCAAGA	4380
CATTGTCGGA CTGTCCCACG CTTGATTTC A GTGTGGATAG TTTGAGGAAC TTTTCCAAGC	4440
AGAGAGGCAA TTTCTCTATT TGATTTCCTT TCTTTTTC ATCTTTCGAT TAAGCGACGG	4500
CTATCGATTG TCAAAATGTT GCCTTTTGTA GTATAATGGT TTTGCATCTC TGTGCCCTTC	4560
TTGTGTTTGT GGTGGAACAA CAAGTATAAC ACAGAGGTGT TTTCTTATGC CTACAAGAGC	4620
TATCGGCTAG TTGAACCATC TAATTTT TAGAGGCTGGG TGGCTAACTT CATTATAGAA	4680
CTTTCATTTA CGAACATATA GTAAAATGAA ACAAGAACAG AACAAATCGA TCAGGACAGT	4740
AAAATCTATT TCTAACAATG TTTTAGAAGC AGAGGTGTAC TATTCTAGTT TCAATCTATT	4800
ATATTTTGT TTTTATCAA AAAATACTTT ACAAGTTCTT AAAACATGA TATAGTAATA	4860
AAGCTTAGAA AATGAGATGA TGTTTCTAG CAAATATAAA CCCGAGTAAA AAATGCCTAC	4920
GGACAGGCAG GGTGGAATGC CGAAGCGTGG TTGAAAGCC ACATTATTGA TAGGGTAAA	4980
AGCCTACTTT TATAAGTTGA TGTTAGGACA CTTGTCCTAA TTCATAAATT TTTAGTGTGG	5040
TGAAAGCACA CGTCATCTTG TGAAACGATC AATAAAGTAC GTAATATTTG CTACTAGAGA	5100
GTTAGGAAAC ATCGGGAACA GACATACTCA ACAGAAACCA AAATAAACAC GTCAGAAGAT	5160
TGCAGAGCAG GTGAAAACCT GCTCTTTTTT CATGAGTCAA CCTTTAGTTC CTTAGTTTTT	5220
ATAAGGTCCT AAAAATATTG AAAGGAGTAT GTTTTGAAAG AGTTAGATCA AAACCAAGCC	5280
CCAATTTATG AGGCCTGGT GAAGTTACGC AAGAAAAGGA TTGTTCCCTT TGATGTCCA	5340
GGTCACAAGC GTGGACGGG AAATCCAGAA CTTGTCGAAC TCTTAGGAGA AAAATGTGTA	5400
GGCATTGATG TCAATTCGAT GAAACCTTTG GATAATTTAG GCCATCCTAT TTCGATTATT	5460
CGTGATGCAG AGGAGCTGGC TGCAGATGCT TTTGGAGCTA GCCATGCCTT TCTAATGATT	5520
GGTGGAACAA CTTCATCGGT GCAGACTATG ATCTGGCAA CCTGCAAGGC AGGAGATAAG	5580
ATTATTTCTGC CACGAAATGT CCATAAATCT GCTATCAATG CGTTGGTTCT ATGTGGTGCC	5640
ATTCCCATCT ATATCGAGAT GAGTGTAGAT CCTAAGATTG GTATCGCTTT AGGTCTTGAA	5700
AATGACCGAG TAGCACAGGC CATAAAGGAC CATCCAGATG CTAAGGCTAT CCTAATCAAC	5760

597

AATCCTACTT	ACTACGGCAT	CTGTTTCAGAC	CTAAAGGGGT	TGACAGAAAT	GGCTCATGAA	5820
GCTGGCATGA	TGGTTTTAGT	AGATGAAGCC	CACGGAGCGC	ATTTGCATTT	CACTGATAAA	5880
CTTCCAATTT	CTGCTATGGA	TGCAGGGGCT	GATATGGCAG	CAGTTTCCAT	GCATAAGTCT	5940
GGTGGGAGTT	TGACCCAAAG	CTCCATTTTA	CTTATCGGGG	AGCAGATGAA	TTCTGAATAC	6000
GTTTCGTCAGA	TAATTAACCT	GACCCAGTCT	ACATCTGCCT	CTTACTTGTT	GATGGCTAGT	6060
TTGGATATTT	CACGTCGCAA	CTTGGCCCTT	CGTGGTAAAG	AGTCGTTTGA	GAAAGTCATT	6120
GAGCTATCTG	AGTATGCCCG	CCGTGAAATC	AATGCTATCG	GTGGCTACTA	TGCCTACTCA	6180
AAAGAGTTAA	TAGACGGTGT	TTCGGTTTGC	GATTTTGACG	TAAGTAAAGCT	GTCAGTTTAC	6240
ACTCAGGGTA	TTGGCTTAAC	AGGTATCGAG	GTTTATGACC	TCTTGCGAGA	CGAATACGAC	6300
ATTCAGATCG	AGTTTGGTGA	TATCGGCAAT	ATCTTGGCCT	ATATTTCAT	CGGCGACCGC	6360
ATCCAAGACA	TCGAGCGCTT	GGTTGGTGCT	CTGGCTGATA	TTAAGAGACT	CTATTCAAGA	6420
GATGGAAAAG	ATTTGATAGC	AGGAGAATAT	ATTCAGCCCG	AGTTAGTGCT	GTCTCCGCAA	6480
GAAGCCTTCT	ATTCAGAAAG	AAAAAGTTTA	ACTTTGGATG	ATTCTGTGCG	ACAGGTCTGT	6540
GGAGAATTTG	TTATGTGTTA	CCCTCCAGGT	ATTCCTATCT	TGGCTCCTGG	TGAACGCATT	6600
ACACGAGAAA	TTGTCGACTA	TATCCAATTC	GCCAAGGAAC	GTGGTTGCTC	CCTCCAAGGG	6660
ACGGAAGATC	CAGAGGTCAA	TCATATCAAC	GTTATTAAAG	GAAAGACAAA	CTATAAGAAA	6720
AGTCAATAGT	TTTATCTAAA	CTATTTCTTA	TTTCAATTTG	ATGATTGGC	GATGATTTTA	6780
GAGCACGGCA	AAAAGCCCTT	GAATTAGAAG	CGGTCAATCG	CTTAATTTCT	ATCAGCTTAT	6840
CAAATCCTGC	CTCAAGCCTT	TTCTGAGGAT	TAGGGTAGCG	TGTCAAGAGT	TGGTAGGTAT	6900
ATTCTGAATG	CTTTCCAACG	ATTTTATCCA	ACTCAGGAAA	GATGATATCA	AGACAACGAG	6960
TGTATGTGAC	TTTCCAATCA	GACTGTTTTT	TCTTGAGACG	ATGAATATGT	CTAGCCAGTA	7020
TTTTTAGTTC	TACTTGCCGA	TTATCGTGTT	GAAATTGTTT	ACGATTGGGG	TCAGAAAGAA	7080
GTTTAAGAGC	GATGCCATGA	GCGTCTTTCT	TATCCGTTTT	AGTTTTCGCA	AGTGATAATG	7140
ATTTGGCAAA	TTTCTTGATG	AGCAAAGGAT	TGTAGGTGTA	AACTTTATAT	CCTTGTTTAT	7200
GCAGGAAGTT	CAGTAGATTA	AAGGCATAAT	GTCCGGTATT	TTCAAGAGCG	ATGAGACAGT	7260
CTTGTTGAG	CTGTCGAAGA	GACAGATCTA	AGAGTTCAAA	ACCAGCTTTA	TTATTTGAAA	7320
AAGTGAGTGG	TTTAAGAACA	GTTTTTCCTG	GAACATTCAA	GGCTGTAACA	TCGTGTTTAT	7380
TTTTAGCGAC	ATCAATGCCC	ACATAAAGCA	TGGGAGTATC	TCCAGATATA	GTATTTCAAG	7440
TCTACTGGGT	TATCCACGAA	CTTTTTCCTT	TGTTACCTTA	GACGAGATAA	AACGTCTATG	7500

598

CGTTATCAAA CTCATTACCA ATTGAAACAA AAAACTGTGG TTAGAGCC'TT TCGGAAATCG	7560
TCAAGCGATT GGAGGAAATG AACTAATCCA CAGTGGCTTA TTCCAAGTAT ACCACTTGGG	7620
CTTTGGCAGT AGCTAACTGC GCTAAATATA ATATAAGGAG AAATAGATGG ATTTATGGTT	7680
TTCTGAAGTT CATACTCCAG ATGTCAAATT GTCTCTGAGA ACAGCCAAGC AACTTTACGC	7740
TGGAAAAAGT GAATGGCAGG ATATCGAAGT CTTGGATACG CCAGCTTTTG GGAAAATACT	7800
GATTTTAAAT GGCCATGTCT TGTCTCAGA TCGGATGAT TTCGTCTACA ATGAAATGAC	7860
CGTTCACGTT CCCATGGCTG TCCACCCAAA TCCAAAGAAA GTATTGGTTA TTGGGGGTGG	7920
TGACGGCGGT GTTGCCCAAG TATTAACCCT CTATCCTGAA CTGGAGCAAA TTGATATTGT	7980
GGAACCGGAT GAGATGTTGG TCGAGGTCTG TCGTGAGTAT TTCCAGACT TTGCTGCAGG	8040
GCTAGATGAT CCTCGTGTTA CCATTTACTA CCAAAATGGG CTACGCTTTT TCGGAAACTG	8100
CGAAGATGAT TACGATATTA TCATCAACGA TGCCACAGAT CCATTTGGCC ATACGGAAGG	8160
ACTCTTTACC AAGGAATTCT ACGGCAATAG TTATCGAGCT CTGAAGGAAG ACGGCATCAT	8220
GATTTACCAG CATGGGAGTC CCTTCTTTGA CGAGGATGAG TCGGCCTGCC GAAGCATGCA	8280
CCGCAAGGTC AATCAAGCCT TTCCAATCAG TCGGGTTTAT CAGGCCATA TTCCAAC TAG	8340
CCCAGCTGGC TATTGGTTGT TTGGATTTGC ATCGAAAAA TACCACCCTG TCAAAGATTT	8400
TGACAAGGAA GGCTGGAAAA AACGCCAGCT TTTACAGAA TACTACACTG CAAACTTACA	8460
CGTGGGAGCC TTTATGTTGC CCAAGTATGT TGAGGACATT TTAGAAGAAG AGGAAGGAAA	8520
AAAATGAGTC GTTTACTAGT TATTGGTTGT GGGGGCGTTG CCAAGTTGC TATTTCAAAG	8580
ATTTGTCAAG ATAGCGAAAC ATTTACAGAG ATTATGATTG CTAGCCGTAC CAAGTCAAAA	8640
TGCGATGACT TGAAAGCGAA GCTAGAAGGC AAAACAAGTA CTAAAATTGA AACTGCAGCA	8700
CTTGATGCTG ACAAGGTTGA AGAAGTGATT GCCCTGATTG AAAGCTACAA ACCAGAAGCT	8760
GTTTTGAATG TAGCTCTGCC TTATCAAGAT TTAACCATTA TGGATGCTTG TTTGGCAACA	8820
GGTGTTCACT ATATCGATAC AGCCAAC TAC GAAGCAGAAG ACACAGAAGA CCCTGAGTGG	8880
CGTGCTATCT ACGAAAAACG TTGTAAGGAA CTTGGTTTTA CAGCCTACTT TGACTACTCA	8940
TGGCAGTGGG CTTATCAAGA GAAATTCAAA GAAGCAGGCT TGAAGTCTCT TCTTGGTTCT	9000
GGTTTTGACC CAGGTGTAAC TAGTGTCTTT TCAGCTTATG CCCTCAAACA CTATTTTGAT	9060
GAAATCCATT ATATCGACAT TTTAGACTGT AATGGCGGTG ACCACGGTTA TCCATTTGCA	9120
ACCAACTTTA ATCCAGAAAT TAATCTCCGT GAGGTTTCTG CGCCAGGTTC TTAAGTGGAA	9180
GATGGGAAAT GGGTCGAAGT CGAAGCTATG TCTATCAAGC GTGAGTATGA TTTCCCTCAA	9240
GTGGACAAA AAGATATGTA TCTCCTTAC CATGAAGAAA TCGAATCATT GGCCAAGAAC	9300

599

ATTCCAGGTG TCAAACGCAT TCGTTTCTTT ATGACTTTTG GTCAATCTTA CTTGACGCAC	9360
ATGAAATGTC TTGAAATGT TGGACTCCTT CGTACGGATA CCATTAACCT TAACGGCCAA	9420
GAAATTGTTC CAATTCAATT TTTGAAAGCC TTGCTTCCAG ATCCTGCCAG TCTTGGGCCA	9480
CGTACAGTCG GAAAAACCAA TATTGGATGT ATCTTTACAG GTGTCAAAGA CGGTGTCAA	9540
AAGACTATCT ATATCTACAA TGTCTGCGAC CATCAGGAAT GTTACGCAGA GGTGTTTCCG	9600
CAAGCTATTT CTTATACGAC AGGAGTTCCA GCCATGATTG GGACAAAATT AGTCATGAAC	9660
GGAACCTTGA AACAAGCTGG AGTGATAAC CTTGAGGAGT TAGATCCAGA TCCATTTCATG	9720
GAAGCTTTGA ATGAGTATGG TTTGCCATGG GTTGTGGTTG AAAATCCACA AATGGTGGAC	9780
TAATGAAGTT AGAACAAGTA CCAACACCAG CCTATGTTAT TGAAGTGGCC AAGTTAGAAG	9840
CTAATTGCCG CATTCTACAA TATGTACAAG AAGAGGCCGG TTGCAAGGTC TTGCTTGCCC	9900
AGAAGGCATA TTCCCTCTAC AAAACTTATC CCTTGATTAG CCAGTATCTA TCAGGTACGA	9960
CAGCTAGTGG ACTCTATGAG GCCAAATTGG CAAGGGAAGA ATTTCCTGGT GAAGTCCATG	10020
TATTTGCGCC TGCTTTCAAG GATGCAGACT TGGAGGAATT GCTAGAGATA ATGGACCATA	10080
TAGTCTTTAA CTCAGAGAGA CAGTTGCGTA AACACGGTCC GCGTTGTCGA GAGGCTGGTG	10140
TCAGTGTTGG TTTGCGCCTC AACCTCAGT GTTCAACTCA AGGcAGATCA CGCGCTCTAT	10200
GACCCCTGTG CACCAGGTTC TCGCTTTGGA GTTACTATAG ACAAGATTCC GAGTGATTG	10260
CTAGATTTGG TTGACGGACT TCATTTTCAT ACCCTTTGCG AGCAGGGAGC AGATGATTTA	10320
CAACAACCTT TGAAGCAGT AGAAGAACAG TTTGGTCCCT ACTTACATGA GGTAAGTGG	10380
CTCAATATGG GTGGTGGTCA TCATATTACA AGAGAAGGTT ACGATGTGGA TTTGCTGATT	10440
TCAGAAATCA AGCGTATCCG AAAAATTAC AATCTTGAAA TCTATATCGA GCCTGGTGAA	10500
GCCATTGCGC TTAATGCGGG TTATTTAGCA ACTGAGGTAT TAGATATTGT AGAAAACGCT	10560
ATGGAATCT TGGTTTTAGA CGCCTCTGCG ACCTGCCATA TGCCTGATGT ACTTGAGATG	10620
CCCTATCGTC CACCTTTGAG AAATGGCTTT GAGTCACAGG AAAAAGCCCA TACCTACAGA	10680
CTTCTTCTA ATACCTGTCT GACGGGCGAT GTGATTGGTG ATTATAGTTT TGAAAATCCA	10740
GTCCAAATCG GAGACAGACT TTATTTTCAA GACATGGCCA TTTATTCTTT TGTCAAAAAT	10800
AATACCTTTA ATGGTATTGG ATTGCCAAGT CTCTATCTCA TGGACGAACA GGGAGACTGT	10860
AGCTTACTCA AAGCTTTTGG CTATCAAGAC TTAAAGGGA GATTATCATG ATGGACAGTC	10920
CAAAAAATT AGGCTATCAC ATGCCAGCAG AGTACGAACC CCATCATGGT ACCCTCATGA	10980
TATGGCCGAC TCGACCAGGA TCATGGCCTT TTCAAGGAAA GGCTGCTAAA AGAGCATTTA	11040

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CTCAGATTAT	CGAGACCATA	GCAGAAGGGG	AAAGAGTCTA	TCTTTTGGTG	GAGCAGGCCT	11100
ATCTATCTGA	AGCCCAATCC	TATCTTGGAG	ACAAGGTTGT	TTATTTAGAC	ATTCCCACCA	11160
ATGATGCCTG	GGCGCGTGAT	ACTGGCCCAA	CCATTCTCGT	CAATGATAAA	GGTAAGAAAT	11220
TAGCCGTGGA	TTGGGCTTC	AATGCTTGGG	GAGGCACCTA	TGATGGTCTT	TATCAAGATT	11280
ATGAAGAGGA	TGACCAAGTA	GCCAGTCGTT	TTGCTGAGGC	CTTGGAAGG	CCTGTCTATG	11340
ATGCTAAACC	TTTGTACTG	GAAGGAGCG	CAATCCATAG	CGATGGTCAA	GGAACATTC	11400
TCGTAACCTGA	AAGTTGCTTG	CTTAGTCCTG	GTCGCAATCC	TAACCTGACT	AAAGAGGAGA	11460
TTGAAAACAC	ATTATTAGAA	AGTCTTGGTG	CTGAAAAAGT	TATTTGGCTT	CCTTATGGTA	11520
TTTATCAGGA	TGAAACCAAT	GAACACGTCG	ATAATGTTGC	TGCCTTTGTT	GGTCCTGCTG	11580
AGCTTGTTTT	GGCTTGACA	GATGACGAAA	ATGATCCCCA	GTATGCCATG	TCAAAAGCAG	11640
ATCTCGAACT	CTTAGAACAG	GAAACAGATG	CAAAGGTTG	TCACCTCACC	ATTCATAAAT	11700
TGCCTATCCC	TGCAGTTCGA	CAAGTTGTGA	CAGAAGAAGA	TTTGCCAGGC	TACATCTATG	11760
AAGAAGGAGA	AGAAAAGCGA	TACGCAGGTG	AACGACTAGC	AGCTTCCTAC	GTAAACTTTT	11820
ATATCGCCAA	CAAGGCTGTC	TTGGTTCAC	AGTTTGAGGA	TGTAAACGAC	CAAGTGGCCT	11880
TAGATATCCT	CAGCAAGTGT	TTCCCAGACC	GTAAAGTTGT	CGGAATACCA	GCCAGAGATA	11940
TTCTCTTAGG	TGGTGGCAAT	ATCCACTGTA	TCACCCAACA	AATTCAGAA	TAGGAGAAAA	12000
AGATGAGAAA	TGTAAGAGTT	GCAACCATT	AGATGCAATG	CGCTAAGGAT	GTGGCAACAA	12060
ATATCCAAAC	CGCAGAGCGT	TTAGTACGTC	AGGCTGCTGA	GCAAGGAGCC	CAAATTATTC	12120
TCTTGCCCGA	GTGTTTGAA	CATCCCTATT	TCTGTCAGGA	ACGTCAGTAT	GACTACTACC	12180
AGTATGCCCC	ATCTGTAGCG	GAAAATACTG	CCATTCAGCA	TTTTAAGGTG	ATTGCTAAGG	12240
AACTACAAGT	TGTTTTACCA	ATCAGTTTCT	ATGAAAAAGA	TGGTAATGTC	TTGTATAACT	12300
CTATTGCCGT	CATTGATGCA	GATGGGGAAG	TGCTGGGCGT	TTATCGAAAG	ACCCATATAC	12360
CAGATGACCA	TTATTATCAA	GAAAAATTCT	ATTTACAGCC	TGGTAACACT	GGTTTCAAGG	12420
TCTGGAATAC	TCGCTATGCT	AAGATTGGTA	TCGGTATCTG	TTGGGATCAA	TGGTCCCTG	12480
AAACAGCGCG	CTGTCTTGCA	TTGAATGGTG	CTGAATTGCT	CTTTTATCCT	ACAGCTATCG	12540
GTTCAGAGCC	AATTTTGGAT	ACAGATAGTT	GTGGTCACTG	GCAACGTACT	ATGCAAGGGC	12600
ACGCAGCAGC	GAATATTGTT	CCAGTCATCG	CAGCCAATCG	TTATGGTTTA	GAGGAGGTTA	12660
CTCCTAGTGA	GGAAAATGGC	GGACAGAGCT	CCAGTCTTGA	CTTCTACGGT	TCCTCCTTTA	12720
TGACGGATGA	AACAGGAGCT	ATTCTAGAAC	GAGCTGAAAG	ACAAGAAGAA	GCTGTTCTGT	12780
TAGCTACTTA	TGACCTAGAC	AAGGGAGCAA	GTGAACGCCT	AAACTGGGGC	TTGTTTCGAG	12840

601

ATAGAAGACC	AGAAATGTAT	AGACAAATTA	CAGATTAGTG	TGGGAGAAAT	GAGAGATTCA	12900
TTCTGCTAGA	CTAACTTCTT	ATTAGTAACT	ATAAGATACT	ATGGCATCTA	GTAAATCGAT	12960
TTTTATGATT	CGCTATTCTT	GTCTATTGAT	TAGTCCGTAT	TTTAAATAT	TAGCAAAAAA	13020
GCAAATAGCA	GTAACCTCTG	TCTATTGCT	TTTCTTTTTT	ATAGAATATA	TTTCTCAATA	13080
GCACGCGCAA	CGCCGTCTTC	TTCGTTGCTT	GAGGTAACGG	CATCCGCAAG	AGATTTGATA	13140
TAATCGCTGG	CATTTCCTAT	TGCAATCCCA	AGCCCTGCAA	ACTGGAGCAT	TTCGATATCG	13200
TTATTAGCAT	CGCCCATGGC	CATAATCTCT	GAGGAATCAA	TCTTCAAAAT	CTCAGCTAGT	13260
CGTGAAAGAG	CAGTAGCCTT	TGTCGTTCCA	AGCGGCATTG	CTTCATAAAT	GACAGGCTGC	13320
GAACGAACTC	CACTGAATCG	TTGGCAAAGC	TCTTCAGCAA	AACGCTGCTC	AAAATCGTCT	13380
GTTTGTCTCT	TTGTTCCTAA	ACACATACCT	TGGAACATCC	GGAACCTTCC	ACTAGTCGCT	13440
TCTTCAAGAG	AAATTTTCAGT	CAGGTCTGAA	AATACTAGTT	TAGCATCATT	TTCAATAACT	13500
TGATTGGGCT	TGTCACCGAG	AACAAAATAA	TGTGACTCGT	CAAAAAGTGT	CAACTGAACA	13560
TCACTCTTTT	CAGCAAGGTC	ATAGAGGTAT	TCGATGTCAG	CTGGACTCAG	TTCTTTCCAG	13620
TCAACTAGAC	TCCAATCACT	GGTCTGGTGA	GTTGAACAAC	CGTTGTTAAC	AATAATATAT	13680
TCGTCTTGGA	GGTCAAGCTC	CAGTTTTTTG	TAGTAGGGGA	GGACACCGAA	AAGGGGGCGA	13740
CCCGTACAGA	GAACCAGTTT	GACACCTTTT	TCAATGGCTT	TGTGAATAGC	AGTAATGTGT	13800
GCTTGTGGGA	TTTCCTTGGC	TTCATTGAGG	AGGGTGCCGT	CCATATCCAA	GGCTAGTAGT	13860
TTAATCATAG	GTCTTCTCT	TTATCTTTGC	TATTATTATA	GCATATTTTG	GAGAAGAAAT	13920
TGATAGAAAG	CTTGAGACTA	ATTGATTTTA	TAGTTTAAGA	TGTTTTGATG	ACAATTTCATG	13980
ATTTGAAGAG	GATATTTTCG	AAAGATATGC	TATACTATGT	TTGTCAATGT	TGCAACTAGA	14040
CAAATTAAAA	AACCAACTTA	ATATAATAGT	TTTTTTGTAA	GTAGGTATGA	GTAGCAGATT	14100
ACTCAACTAA	TCTGAAGAAT	AATGGAGGAA	ATATATCATG	ATTTTAATGA	CAAAAAATAT	14160
AAATCTAACA	AATGAAGAAT	TAGAGCTGAT	ACAAGGTGGA	GCAGATCCAT	ATGGTAAAAA	14220
TCCTAATGGT	AGGTACGATT	GGGAAATAGA	ACCAGTATTA	ACTCTGCTGG	TTCATGGATT	14280
TTGTCCCAGA	GGCACCTATG	ATTCAGGATA	TATTGGAGGA	GGTAATCATC	TTTGCAAAGG	14340
AAGTGCTGCG	AGATTTTAAG	TAAAATTTAT	TAGGAATATG	AAGAAACAAG	GGGAGAAAAC	14400
AGAGGATTTA	ATATGAAAAA	ACGAGCTATT	CAAATTTTAC	TAGCATTGTC	CTTAATTTTT	14460
TACAAATCAA	CTTGGTTTTG	GAGGCTTTTC	AATTATCTCG	CAAAGCCCTA	TCTACCAGCA	14520
AGTCGTGAAT	TTTTTCAGAT	TCTGCTTTTG	ATGGAGAGCG	GAGTTCTTTT	CTTAGCGGTC	14580

602

ATCTATCTAC	TGGTTTTTGC	AGGAAAGAAA	ATTTTTTCATT	TCAAGTGGCA	GCTGAGGTAC	14640
TTTCATCTACC	TTTTACTGGG	CTACATCATT	TCATATATGT	CTGACTTCCT	CTTTTCGTAT	14700
TTCATATCCC	TGTCTTCAAA	TCAGATTTCT	TTGAATGAAA	CGGTAGAAAT	GATGGGGAGA	14760
CAGGAGTTCC	CTTATGTCTT	GCTCATCGTT	TGCTTCATCG	CCCCTATTGC	TGAGGAATTG	14820
ATTTATCGAG	GtGTGCTTAT	GACAACCTGT	TGCAAAACT	CACCTTGGA	CG	14872

(2) INFORMATION FOR SEQ ID NO: 73:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10223 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

CGTGCATATCG	GTCTCAAAAC	CAATCTGGTC	GCTATGGTCA	AATCCAGTTG	GAAAATCCAT	60
TCTTCTTGGA	GCCATCTGCT	GGATTGCCAT	CATCCTCACC	ACTCTTGGA	TGCAGACCCT	120
TATCGGCATT	TTCTAATACT	CTTCGAAAAT	CTCTTCAAAC	CACGTCAACG	TCGCCTTGCC	180
GTAGGTATAT	GTTACTGACT	TCGTCACTTC	TATCTGCAAC	CTCAAAACGG	TGTTTGAGCT	240
GACTTCGTCA	GTTCTATCTG	CAACCTCAAA	ACGGTGTTTT	GAGCTGACTT	CGTCAGTCGT	300
ATCTACAACC	TCAAAACAGT	GTTTTGAGCT	GACTTCGTCA	GTTCTATCTG	CAACCTCAAA	360
ACAGTGTTTT	GAGCAGCCCG	TGGCTAGTTT	CCTAGTTTGC	TCTTTGATTT	TCATTGAGTA	420
TAACACAAAA	GGTAGCCCAT	CAGCTACCTT	TTTCTTATGC	TTCCTCAATC	AAGCGAGTAT	480
GTTCTCTCTT	GATACAGCGA	TTCATCACGA	TATCATCACA	TCCACCATCA	CGCAAAATCT	540
CTTTTCGCTT	TAAACTTTCA	AGTCCTAGCT	GTGCCCCAAA	AATCTTGGCA	TCAGCTTTGA	600
GAAAATCACG	CGCCACATCG	GGCAGAAATT	CACTGCGACG	ATAAACATTG	ACAATATCTA	660
CAGGAAAAGG	AATTTAGCG	AGGCTAGCAT	AAGCCTTTTC	ACCCAAGATT	TCGCCACCTG	720
CCGCCTTGGG	ATTGACTGGG	ATGATTTTAT	AGCCCCGAGC	CTGCATTTCC	TTTGTTACTC	780
GATTGCTGGT	TGTTTCTTCA	CGGTCAGACA	AACCCACCAC	AGCAAGGGTT	TTACTCGTTG	840
CGAGATACTG	ACGAATCACG	CCATCACTTG	GATTGATAAA	TTCTTGACTC	ATAGAAATCC	900
TCCTTTTTC	TCAGTATAGC	ACATTTTGAA	AAGGTTTGCA	GAATTATACT	ACAAAAAGG	960
AGGACTAGCC	CCCTTTTAT	TTAGCCTCGT	ACCAGGTTGC	CCCTTCATTC	TCATCTGCGA	1020
TAAGAGGAAC	ACTGAGTTGA	ATGGCTTCTT	CCATGGTTTG	TTTCACCAAT	TTTTTCATCT	1080
CTACCAATTC	AGATTTAGGC	ACTTCAAGGA	CGATTTTCATC	GTGCACTTGT	AACAGCATCT	1140

603

TAGTCTGATA ACCACCTGCA ACCAAGGCTT TATCCAGCTG AATCATGGCA ATCTTGAGAA	1200
TATCTGCTGC CGAACCCTGG ATAGGTGAGT TGATAGCAGT TCGCTCCGCA AAACCACGAA	1260
TATTGAAGTT GCGCGAATTG ATATCTGGCA ACTCACGGCG ACGCTTAAAG AGGGTCTCTA	1320
CATAGCCCTT ATCACGCGCC TCCCGCACCA CTTTCATCCAT GTAGTTTTTA ATACCTGGAA	1380
AACGTTCAAA GTAGGTATCA ATGTAGGCTT TGGCTTCCTT ACGACTAATT CCCAAATTAT	1440
TAGACAAGCC AAAGTCTGAA ATCCCATAAA CCACTCCAAA GTTAACTGCC TTGGCATTGC	1500
GACGGTCGTT TGCAGTCACA TCATCAGGAC GCTCAATGCC AAAGACCCGC ATGGCTGTCTG	1560
AAGTATGGAT ATCTGCCCCC TCTTGGAAGG CCTTAATCAA GTGCTCATCC TTAGAAATAT	1620
GCGCCAAAAC GCGCAATTCA ATCTGTGAAT AGTCAGAGCT GAGTAGCACA CTATCCTCCC	1680
ACTCTGGCAC AAAAGCCTTC CGAATCAAGC GCCCTGTTC CAATCGGGCA GGAATATTTT	1740
GCAAGTTTGG ATCCACACTA GACAAACGCC CGGTCTGGGT CAAATCCTGC ACATAGCGAG	1800
TATGAATCTT TCCATCAGCC AAAATCCAGT CCTGCAAGCC AATTACATAA GTAGATTGAA	1860
TCTTAGCAAT TTGACGGTAA TCCAGGATTT TCTTAACAAT CGGAGCAATA GGAGCGAGAC	1920
GCTCTAAAAC ATCCACTGCT GTCGAATAAC CTGTCTTGGT TTTCTTAGTG TATTCTAGAG	1980
GAAGTCCCAA TTTCTCAAAG AGAAGCACGC CCAACTGCTT AGGCGAGTTG ACATTAAACT	2040
CCTCACCAGC CAGCTCGTAA ATCTCTTGAG TCAGTTTTTC AATGACAAGC TCATTTTCAG	2100
CCTGCATCTC AAGCAAGGTC TCTTTCTTGA CCATAATCCC AGCAATTTCC ATCTTGGCAA	2160
GGACAAAAGC CAGAGGTGTC TCCATATCAT AAAGAAGCTC TAATTGCCCA TTTTCGCTGA	2220
GTTTTTCAAG TAAAATAGGC TCTGTTTCTA CAAAACAGC AAGTTTACAA GCTAAGTGT	2280
CCAAGAATTT CTCACGTTCA GGAATGGCCT TTTTAACACC CTTACCGTAG AAAGTTTCAT	2340
CATCAACCAA GTAAGTCTGA CCATAAAGAC TAGCGATGGT CGCAATTTCA TTGTCCTCCA	2400
CAGTCGAAAG GAGGTATTTA GCCAAACGGA TGTCAAAGC AGGCGCCTGC AAATCCACAC	2460
CAAAACGTTG CAAAAGAACT TTAACCTTCT TAAAGTCATA AACTCTCAGA GATGTTTTTT	2520
CTAAGAAATC CTTGAAAATC GGGTCTTGCA ACAGCTCAAG CTTGTCTGTG GCATAGAGCT	2580
TATCCCCACA AGACCAGACA AATCCAACCA AATTATCCGT ATGGTAATTC TCACCAAAAA	2640
GCTCAAAGTG GAAGATAGAC TCTTCACTCA GCATATCTTG ACTGATTTGG TCAACAATAG	2700
TAAAATCCAA ACTCTCAGAC ACATCAGCTG ACGACACATT TAAAGCCTGC TTTAGCTGTT	2760
TGAAGCCCAT CTCATCGTAG AATTTCCCAA GATTTTCAAC ATCTGGACCA CTATAGACCA	2820
AGTCCTCTAA ACCAATCGCA ATCGGTGCCT TGGTATCAAT GGTCGCTAGT GTTTTAGACA	2880

604

AAAAGGCCCTG TTCCTTGTC	TTGATGAGAT TTTCTTCAT	CTTAGAAGTC TTCATTCCAT	2940
CAATATTTTC ATAAATCCCC	TCAAGCGAAC CATGCTCCAG	CAAGAGCTTA ATACCCGTCT	3000
TTTCACCGAC TTTGGTCACC	CCAGGGATAT TATCCGACTT	ATCACCCATG AGCGCCTTGA	3060
GATCGATAAA CTGAGCTGGT	GTGAGGCCCA TTTCTTCCAT	GAGGTAATCT GGCCTAAAGG	3120
CCTCAAATC AGCCACACCT	TTCTTGGAAT TTTCAACCAC	CGTATGCTCA TCCGTCAGCT	3180
GAATCAAATC CTTGTCCCCA	CTGACAATAG TAATATCAAA	ACCATCCTGC TCTGCTAGCT	3240
TATCCAGCGT CCCAATGATG	TCATCCGCCT CATACTGAGC	CAGATCATAG TGACGAATCC	3300
CCATATGATC CAGCAACTCA	CGAATGAAAG GAAATTGCTC	ACGAAACTCA TCAGGAGTCT	3360
TGGCCCGACC ACCCTTATAG	TCCGCATACA TCTCTGTCCG	GAAGGTCGTC TTTCCCGCAT	3420
CAAAAGCCAC CAAAATATGA	CTCGGCTCAA CCCGCTCCAA	TAAATGACTC AACATCAACT	3480
GAAAACCATA AATCGCATTG	GTATGCAAAC CAGCCACATT	CTTAAAACGG TCCAAGTCT	3540
GATACAGCGC AAAAAACGCC	CGAAAAGCTA CAGAAGACCC	ATCAATCAAT AATAATTTT	3600
TCTTATCCAT ACACCCATTA	TAAAGGAAAG AATCAAAAAA	TACCATTGGG AAGAGCTAGA	3660
GCAAGTATTT TTCAAACCTT	TTCCGAATAA ATAGATAGAG	CCAGAGAATT TAGTAAACCT	3720
AGATTTAAAA ATGTGCTATA	ATATAGTATA TTGAATCTAT	AATAGTACAC CTTGACTGCT	3780
AAAATATTTT TATAAATTAA	TTTGACTTTC CTGATAGAGT	TATTCACATC TTATTTCAAC	3840
TCATATAGA AGGAGGAATA	GGAGGATTCT CAGACATCCG	GGCATCAGCC CAACTAATGA	3900
TTTGATTGCT AAGAAAATAT	TCAGCAATCC AGAAATCACT	TGTCAATTTA TTCGCGATAT	3960
GCTGGACTTG CCAGCAAAAA	ATGTGACCAT TTTGGAGGGA	AGCGATATTC ACGTATTACT	4020
CTCCATGCCT TACTCGGTGC	AGGATTTTTA TACCAGTATA	GACGTCTTGG CGGAGTTGGA	4080
TAACGGTACT CAAGTAATTA	TTGAGATTCA AGTCCATCAT	CAGAATTTT TCATCAATCA	4140
CTTGTGGGCT TACCTGTGCA	GTCAGGTAA TCAAAATCTT	GAAAAAATTC GTCAGCGAGA	4200
AGGTGATACT CACTAGAGCT	ACAAACACAT CGTCCTGTT	TACGCCATTG CTATCGTGGA	4260
TAGTAATTAT TTCTCAGATG	ACCTGGCTTT TCATAGCTTT	AGTATGCGCG AAGACACAAC	4320
AGGTGAGGTA TTGGCGATTA	CCAACAATGG ACAGGAAAAC	CATCTGGTTA AGATGGCATT	4380
CTTGGAATTA AAAAATACAG	AGAAACCAGC AAAGACAAGG	TTGCAAGCC ATGGTTGGAG	4440
TTTTTCGGCA ACAAGCCCTT	TACCCAGCAA CCGCAACGAG	CCATTACCCA AGCAAATCAA	4500
CTGCTGGACT ACAAGAGCTG	GTCCGAGGAG GACAGGAAAA	TGTTTAGTCA ACTACATATG	4560
CGAGAAGAAC AAGTCTTGTT	AGCACAGGAC TATGCCTTGG	AAACTGCTAG GGCTGAAGGC	4620
CTTGAACAAG GACTAGAGCG	TGGGAAAGTT GAAGGAAGGG	CAGAAAGGAA ACTTTTGGCC	4680

605

TTCCTAGACA	TAGTACGCCA	AGGTCTTCTG	ACTTCTGAGG	TTGCCAGCCA	GCAATTAGGT	4740
ATGTCAGTAT	CTGAATTTGA	GGCACTGTTG	TAAAATGGCT	CCATAATATC	CATAGTGGGT	4800
AAATCCCCTA	TGGATATTAT	GGAGCCTATT	TTGTGTAGAA	AAAAAGTCCC	ATATGACCTA	4860
TAATGAAAAG	CGACAAAACA	ACTCATTAGA	AAGAATCATA	TGGAACAATT	ACATTTTATC	4920
ACAAAATTAC	TAGACATTAA	AGACCCTAAT	GTCCAGATTT	TAAACATCAT	CAATAAGGAT	4980
ACACACAAGG	AAATCATCGC	CAAACCTGGAC	TACGACGCCC	CATCTTGCCC	TGAGTGCGGA	5040
AACCAATTGA	AGAAATATGA	CTTTCAAAAA	CCTTCTAAAA	TTCTTTATCT	TGAAACGACT	5100
GGTATGCCTA	CAAGAATTCT	CCTTAGAAAAG	CGTCGATTCA	AGTGCTATCA	CTGTTCAAAA	5160
ATGATGGTCG	CTGAAACTTC	TGATGACGTA	CAGTCATATT	TCTTCTCTTT	TTATTATATC	5220
ACAGTTTTAA	ATCTAGCTTT	ACTAGATTCA	CCGCTACTAT	CTATTTATTC	GGAAAAAAGA	5280
CGAAAAAACC	TGAGAATCAT	CTCAGGCTTG	GTCATTAAAT	TTTTTTCTCA	ATATCGAAAA	5340
GTGGAGAAAAG	TGGTCGTTTT	TCATGAATAC	GTACGATAGC	ATCCCCTAGG	AGATGAGCGA	5400
TTGAAATCTG	CTCAATCTTA	TCAATCAAAC	GCTCTTCTGG	CAGATAGATG	GTATCCAAAA	5460
CAACCAATTT	CTTAATAGCT	GATTTTTGGA	TATTGTCCGT	AGCAGGACCA	GAAAGAACTG	5520
GGTGCGTACA	GCTTGCATAG	ACTTCAACAG	CACCAGCTTC	CGCAAGAGCA	TCTGCCGCAT	5580
GACAAATCGT	TCCAGCGGTA	TCAATCATAT	CATCAATCAA	GATACAAGTC	TTGCCTTCAA	5640
CCTTACCGAT	GATATTCATA	ACTTCACTAG	TATTCATCTT	ATCAACGCTA	CGACGTTTAT	5700
CAATAATAGC	GATAGATGTT	TTCAAAAAAT	CTGCCAACTT	ACGAGCACGA	GTCACCCCCTC	5760
CATGGTCCGG	GCTGACAACC	ACATAGTCAG	AACCAACCAT	ACCACGACGC	TCAAAATAAT	5820
CTGCAATCAG	AGGAGCACCC	ATCAAATGAT	CCACAGGAAT	ATCAAAGAAT	CCTTGAATTT	5880
GCGCAGCATG	CAAGTCGATG	GTCAATAAAC	GATCCACTCC	AGCTACTTCA	AGCATATTTG	5940
CGACAAGTTT	TGAAGTGATT	GGCTCACGCG	CTCTCGCCTT	TCTATCCTGA	CGTGCATACC	6000
CATAGTAAGG	CATGACAACA	TTGACAGATT	CTGCACTCGC	ACGCTTCAAA	GCATCTACCA	6060
TAATCAAAAT	TTCAAGCAGA	TTGTCATTTA	CAGGCGAACT	AGTTGATTGT	AAGATAAAGA	6120
CGTGTTTCCC	ACGGATTGAT	TCTTCAATGT	TGACCTGAAT	CTCTCCATCT	GAAAAATTGGC	6180
GAACACTTGA	TTTCCCCAAC	TCTATCCCAA	TCTCCTGCGC	CACACGTTCT	GCCAATTCTT	6240
TATTAGAAGA	AAGGGCAAAC	AGCTTTAAAT	CAGAAAAAGA	CATGATTTC	TCCGGTATAT	6300
ATGTATAACT	TGTGCTTTTC	ACAAGATTTT	CCATCTACCA	TTGTAGCGCT	TTTTGCACTA	6360
TTTTTCAATC	AAAAATAAAA	GAAGGGCACC	ATATTTGTAC	CCTTGCATCA	TTCTTTTGAA	6420

606						
AAATATTCTA	GGTCATCAAC	TCATTGTGTT	TCTCAACAAA	GCAATAAGCA	TGATAAAAC	6480
CATAGAGAGC	AATAGCCGTA	ACCACTGGAA	TCGCTAAAGG	CAACTCTGTT	TCCAACCTCA	6540
CAAAAGGAGA	GTTAAACAAG	AAGTGAGTTC	CCAAGGCTAA	ACCTAGAAAA	ATAAGGCCCT	6600
GTTTCTTGCC	AACCTTCTGT	CCTTTATAGG	CTCTGTAAAG	CAAGTAAACA	CCTACTACAG	6660
CTAGACCTGA	AAAAGTCCAG	TGAGAGGCAA	TTCCTGAGAT	GATACGCTCT	AAAATTGCGG	6720
AAATAGTAAA	GTCAAAGCCC	TCTGGCAAAT	CCGTACGAAT	ATAACCAATA	TCCTTAATCA	6780
TTTGGAATCC	CAAACCGGAA	GCAATTCCAA	GTA AAAACAA	AGATTTTAAT	TTTCGCACAG	6840
GAATCAAAGC	CAAAACAAAA	ACAAGTGACA	ATAATTTCAA	GGGTCTTCT	ACCAAAGGAG	6900
CCGCAATAGC	ACTTTCAAAG	GCATTTAAAA	ATGGACTATC	TGGGAAAAGA	ACCCCCAGTA	6960
AATCATGGAT	ATAAGTATTA	GCAAACTAG	ACAACCAGCC	TGAAAGGAAC	ATCCCTCCCA	7020
ATAAAGACAG	AATCAAAACC	TTCTTTGGCA	ATTCCCATT	TTCCAATAC	GGAAGAGAAA	7080
ATAAAGAGCC	GGAATCATGT	AAAAGAGAGC	TAGAAAGATA	GAAACTCCCA	TTAGTCCATA	7140
TTCCGCACCT	GACCTCGAAC	CGTCCGTATA	GTAGATGGTT	TCATACTGTA	AACCAATACA	7200
TAGCAATAAA	ATAAAAATAA	ATAAAATATT	GCTTTTCTTC	ATACACTTTC	TTTCTAAATG	7260
AAGTATTTAT	AATTCTACGA	CTGTCATACT	TCCTGTATCA	ACATTGTAAA	TGGCACCAGA	7320
GATAATGACA	TCGTCTGGTA	TTAGGGGAGA	CTCGATAAGC	AGTTGCATAT	CCTCGCGTAC	7380
ACTCTCTTCT	ATATCTTGA	AGGGCAAGAA	GTCTTGCTCT	GACACATCGA	CACCCAATTC	7440
TTCCCTTCAA	TACTCCTGAA	AAGGTTCAAT	TTCAAAGGTC	TGAGCACCAC	AGTCTGTATG	7500
ATGCAATACC	ACAATTTCTC	TTGTCCCAT	TTGTTGCTGG	GAAATAACTA	GAGAACGAAT	7560
CATATCCTCA	GTCACGCGAC	CACCTGCATT	CCGCAAAATA	TGAGCATCCC	CAAGTGCCAA	7620
ACCTAGAGCT	TGCGCAACGT	GCAAACGTGA	GTCCATACAG	GTCACAATGG	CTACTCTGGT	7680
TTTAGGTTTA	AGTGGCAGAT	TTAACTGCCC	ATGTAGGGCA	ACATAAGCCT	GATTGGCTTG	7740
CATAAACTGT	TCAAAATACG	ACACGATTCC	CTCCTTGAAA	ATTTGATAGT	CAAATATTTTC	7800
TCCTATCTTA	TCATTTTAA	GAGAATTTGT	CACGGATTAT	GCAAAGACCT	TTTTCAAGAC	7860
TTCTGAATC	GTTGTCACGC	CAATGACCTG	AATTTCTCTA	GGCAGAGTGA	TTCTGTCAA	7920
GGAATTCCTA	GGTACATAAA	TCTTAGTAAA	GCCCAGTTTA	GCAGCTTCGT	TGATGCGTTG	7980
CTCAATACGA	TTACGCGGCC	GAATCTCTCC	TGTCAAGCCC	AGTTCTCCGA	CAAAACATTC	8040
CTGAGGATTA	GTTGGCTTGT	CTTTGTAGCT	CGAAGCAATA	GCAACTGCAA	CAGCCAAGTC	8100
AATCGCAGGT	TCATCCAATT	TAACACCACC	AGCAGATTTG	AGATAGGCAT	CCTGATTTTG	8160
CAAGAGAAGC	CCTGCCCGTT	TTTCCAAAAC	AGCCATAATC	AAGCTAGCAC	GGTTAAAATC	8220

607

AAGTCCTGTC	GTAGTACGCT	TGGCATTTC	AAACATGGTC	GGTGTACCA	AAGCCTGAAC	8280
CTCCGCCAAA	ATCGGACGCG	TCCCTTCCAT	GGTTACAACG	ATGGAGGAAC	CAGTCGCCCC	8340
ATCCAAACGC	TCTTCTAGGA	AAACTTGACT	CGGATTGAGT	ACCTCAACCA	AGCCGCCCGA	8400
CTGCATCTCA	AAAATCCCAA	TCTCATTAGT	GGAACCAAAA	CGATTTTGA	CCGCTCTCAA	8460
AATACGAAAG	GTGTGGTGAC	GCTCCCCTTC	AAAGTAAAGC	ACCGTATCCA	CCATATGCTC	8520
CAACATACGA	GGCCCAGCCA	AGGTTCCTTC	TTTGGTCACA	TGACCTACGA	TAAAGATGGC	8580
AATGTTATTG	GTCTTGGCCA	ACTGCATGAG	TTCAGCGGTC	ACTTCACGCA	CCTGAGAAAC	8640
AGACCCCTGC	ACCCCTGAAA	TCTCAGGAGA	CATGATGGTC	TGGATGGAAT	CAATAATGAG	8700
AAAGTCTGGC	TGGATACGCT	CCACTTCTGC	ACGAACACTC	TGCATATTGG	TCTCTGCATA	8760
GAGATAAAAC	TCACTATCAA	TATCACCTAA	GCGCTCTGCA	CGTAGTTTAA	TCTGCTGGGC	8820
AGACTCCTCC	CCACTGACAT	AGAGAACTGT	CCCCACTTGG	GACAACTGGG	TTGAGACTTG	8880
TAGGAGAAGA	GTTGATTTC	CAATCCAGG	ATCCCCACCG	ATAAGGACGA	GACTTCCTGG	8940
TACCACTCCG	CCTCCAAGCA	CACGGTTGAA	TTCCTCCATC	TCCGTCTTGG	TTGATTGAC	9000
ATTGATGGAA	GTCACCTCAG	CTAGTTTCAT	GGGCTTGGTT	TTCTCACCTG	TCAAGGACAC	9060
ACGCGCATTC	TTAACTTCGG	CAACCTCAAC	CTCTTCCACA	AAAGAAGACC	AAGACCCACA	9120
GTTGGGGCAA	CGTCCAGAT	ATTTAGGGGA	ATTATACCCA	CAATTTTGAC	ATACAAATGT	9180
CGCTTTTTTC	TTTGGGATGA	CAAACCTCTT	TCTATATCTC	TAACTCACAC	TCAATCACTT	9240
GGCAAAAATC	AATCTTCTCA	TTTGGCACAA	ACTGGCGCAT	GAGCATTCGA	TGAGCAACAA	9300
CTACCACAGT	CTGATGTTCT	CGATACTTAG	ACATACATTC	TAGAAACCGA	GACTTCATTT	9360
CCGTAGCTGT	CTCATATTGA	ATAGGACTAT	TAGGAAGCAA	CTCCCCCTTG	TTTTCTAAAA	9420
ACAGTCTTCT	AGCTGTTTCA	AAGTTTCTA	TTCCTGTTTT	ATAGACCTGC	CATTCATGTA	9480
ATAAAGGCTC	TACTCTTAAA	GGAAGACCCG	TAGCACAGAC	CACATACGAA	GCCGTTTCTA	9540
AAGTCTTGT	GACTGCAGAA	GATACGATTA	TTTCAGCTGA	CGAGAGTAAA	GGATTTTTCG	9600
TCAATTTCTG	GACTTGCTGC	CGTCCCATCT	CAGACAAGGG	TGCCAAATCT	ATCCCAAATC	9660
CTATATAAGA	ACGCTCCTCT	AACTCACGGT	AATCTGGCTC	CCCATGACGT	ACAAAGATAA	9720
TCTTCATTCT	AGTGCCCTGT	CGATCCAAAT	CCACCAGTTC	GAACGCCATC	AGCTGCATCT	9780
CCATCTGCAA	TTAAGAAAGT	AGCAAAAACA	GCCTGGACAA	TACGCTCCCC	AACTTCAAGA	9840
ACAACCTCTT	GGTCTGTGAT	ATTCTTCATC	TGCGCAAAAA	TATGCCCTTC	ATTTCCAGGA	9900
TTTCATAAT	AATCCCCATC	AATGACTCCA	ACTGAGTTAA	TTAAAACCAA	GCCCTTCTTA	9960

608

CGAGGATTTG AAGAACGATC ATAGAGGTAG AGAACCTCAG TCGGCTGCAT ATAAGCCTTA	10020
ACCCCTGTCTG GAACCAAGAC AATCTCTCCT GGCGCAACAA CTGTACGCAC AGCAACCTTT	10080
AAGTCGTAAC CAGTCGCATG CGCTGTCTCA CGCTTGGGCA ATAAATTTTC ATCTGTAAAA	10140
CTCGAAACCA ATTCAAAACC ACGAATTTTC ATAATTTTCT CTTTCTATT ATCATTTATT	10200
CTAGATTATT CTATACTTAT TTA	10223

## (2) INFORMATION FOR SEQ ID NO: 74:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16535 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

TGGTCTCTGTC CTTATCGGCG CCTTGTCTTG CTTGCCATGG CTACACCAAC TATCTCATCC	60
GACGAAAGTA CACCAACCAC TAACGAACCC AACACAGAA ATACAACCAC CCTTGCCCAA	120
CCTCTTACTG ATACAGCAGC TGGCTCTGGT AAGAACGAAA GTGATATTTC TTCACCTGGA	180
AATGCAACG CTTCCCTAGA GAAACAGAA GAAAAACCTG CTGCAAGCCC AGCCGATCCA	240
GCACCACAAA CTGGACAAGA TCGTTCAAGT GAGCCAACCTA CTTCTACTAG TCCAGTAACA	300
ACTGAAACTA AGGCAGAAGA GCCCATCGAA GATAACTACT TCCGTATCCA TGTCAAAAAA	360
CTTCCTGAAG AAAACAAGGA TGCTCAAGGA CTATGGACTT GGGACGATGT TGAAAAACCA	420
TCTGAAACT GGCCAAACGG AGCTTTGTCC TTCAAGGATG CCAAGAAAGA TGACTACGGC	480
TATTACCTAG ATGTCAAATT AAAGGGAGAA CAAGCCAAGA AAATTAGCTT CCTCATCAAC	540
AATACAGCTG GAAAAAATCT AACC GGCGAT AAATCTGTAG AAAAAGTAGT TCCAAAAATG	600
AACGAAGCTT GGT TAGACCA AGATTACAAG GTTTTCTCTT ACGAGCCACA GCCTGCAGGA	660
ACTGTTTCGCG TCAACTACTA CCGCACAGAT GGCAACTATG ACAAGAAATC TCTCTGGTAC	720
TGGGGAGATG TGAAAAATCC AAGTAGCGCT CAATGGCCTG ACGGAACAGA CTTTACGGCT	780
ACAGGCAAAT ATGGCCGCTA TATCGACATT CCTCTTAATG AAGCCGCAAG AGAATTTGGA	840
TTTTTATTAC TAGATGAGAG CAAACAAGGA GACGACGTGA AAATCCGTAA AGAAAATTAT	900
AAGTTCACAG ATTTGAAAAA TCATAGCCAA ATTTTCCTAA AAGACGATGA TGAATCGATT	960
TACACAAATC CATACTATGT CCATGATATC CGTATGACAG GAGCCCAACA CGTAGGCACT	1020
TCTAGCATTG AAAGTAGCTT TTCAACACTT GTCGGTGCTA AAAAGAAGA TATCCTCAAA	1080
CACTCCAACA TCACTAATCA CTAGGAAAC AAGGTAACCTA TTACCGATGT TGCAATCGAT	1140

609

GAAGCTGGTA AGAAAGTGAC CTACAGCGGA GATTTCTCTG ACACAAAACA TCCTTATACT	1200
GTTAGCTACA ATTCCGACCA ATTCCTACC AAAACAAGCT GGCGCCTGAA AGATGAGACA	1260
TACAGCTATG ATGGCAAACCT GGGAGCTGAC CTAAGAAG AAGGAAAACA AGTTGATTTG	1320
ACCCTTTGGT CACCAAGTGC TGATAAGGTT TCTGTTGTTG TCTACGACAA GAATGACCCCT	1380
GACAAAGTAG TTGGAACGTG CGCTCTTGAA AAAGGGGAAA GAGGAACTTG GAAACAACT	1440
CTAGACAGCA CAAACAACT CGGAATCACA GATTTCACTG GCTACTATTA TCAATACCAA	1500
ATCGAGCGTC AAGGTAAAC TGTCTTGCA CTCGATCCTT ACGCTAAATC TCTTGCTGCT	1560
TGGAATAGCG ACGATTCCAA GATTGACGAT GCCATAAAG TGGCTAAAGC CGCCTTTGTA	1620
GATCCAGCTA AACTCGGACC TCAAGACTTG ACTTATGGTA AGATTCACAA TTTCAAGACT	1680
CGTGAAGACG CCGTTATCTA CGAAGCTCAT GTGCGTGATT TCACTTCAGA TCCTGCCATT	1740
GCAAAAGACT TGACCAAACC ATTTGGGACT TTTGAAGCCT TCATTGAAAA ACTAGACTAT	1800
CTCAAAGACT TGGGTGTAAC CCATATCCAG CTCCTTCCAG TCTTGTCTTA CTACTTTGTC	1860
AATGAATTGA AAAACCATGA ACGCTTGTCT GACTACGCTT CAAGCAACAG CAACTACAAC	1920
TGGGGATATG ACCCTCAAAA CTACTTCTCC TTGACTGGTA TGTACTCAAG CGATCCTAAG	1980
AATCCAGAAA AACGAATCGC AGAATTTAAA AACCTCATCA ACGAAATCCA CAAACGTGGT	2040
ATGGGAGCTA TCCTAGATGT CGTTTATAAC CACACAGCCA AAGTCGATCT CTTGAAGAT	2100
TTGGAACCAA ACTACTACCA CTTTATGGAT GCCGATGGCA CACCTCGAAC TAGCTTTGGT	2160
GGTGGACGCT TGGGGACAAC CCACCATATG ACCAAACGGC TCCTAATTGA CTCTATCAAA	2220
TACCTAGTTG ATACCTACAA AGTGGATGGC TTCCGTTTCG ATATGATGGG AGACCATGAC	2280
GCCGCTTCTA TCGAAGAAGC TTACAAGGCT GCACGCGCCC TCAATCCAAA CCTCATCATG	2340
CTTGGTGAAG GTTGGAGAAC CTATGCCGGT GATGAAAACA TGCCCTACTAA AGCTGCTGAC	2400
CAAGATTGGA TGAAACATAC CGATACTGTC GCTGTCTTTT CAGATGACAT CCGTAACAAC	2460
CTCAAATCTG GTTATCCAAA CGAAGGTCAA CCTGCCTTTA TCACAGGTGG CAAGCGTGAT	2520
GTCAACACCA TCTTTAAAAA TCTCATTGCT CAACCAACTA ACTTTGAAGC TGACAGCCCT	2580
GGAGATGTCA TCCAATACAT CGCAGCCCAT GATAACTTGA CCCTCTTTGA CATCATTGCC	2640
CAGTCTATCA AAAAAGACCC AAGCAAGGCT GAGAACTATG CTGAAATCCA CCGTCGTTTA	2700
CGACTTGGA ATCTCATGGT CTTGACAGCT CAAGGAACTC CATTTATCCA CTCCGGTCAG	2760
GAATATGGAC GTACTAAACA ATTCCGTGAC CCAGCCTACA AGACTCCAGT AGCAGAGGAT	2820
AAGGTTCCAA ACAAATCTCA CTTGTTGCGT GATAAGGACG GCAACCCATT TGACTATCCT	2880

610

TACTTCATCC	ATGACTCTTA	CGATTCTAGT	GATGCAGTCA	ACAAGTTTGA	CTGGACTAAG	2940
GCTACAGATG	GTAAAGCTTA	TCCTGAAAAT	GTCAAGAGCC	GTGACTATAT	GAAAGGTTTG	3000
ATTGCCCTTC	GTCAATCTAC	AGATGCCTTC	CGACTTAAGA	GTCTTCAAGA	TATCAAAGAC	3060
CGTGTCCACC	TCATCACTGT	CCCAGGCCAA	AATGGTGTGG	AAAAAGAGGA	TGTAGTGATT	3120
GGCTACCAAA	TCACTGCTCC	AAACGGCGAT	ATCTACGCAG	TCTTTGTCAA	TGCGGATGAA	3180
AAAGCTCGCG	AATTTAATTT	GGGAAC TGCC	TTTGCCACATC	TAAGAAATGC	GGAAGTTT TG	3240
GCAGATGAAA	ACCAAGCAGG	ACCAGTCGGA	ATTGCCAACC	CGAAAGGACT	TGAATGGACT	3300
GAAAAAGGCT	TGAAATTGAA	TGCCCTTACA	GCTACTGTTC	TTCGAGTCTC	TCAAAATGGA	3360
ACTAGCCATG	AGTCAACTGC	AGAAGAGAAA	CCAGACTCAA	CCCCTTCCAA	GCCTGAACAT	3420
CAAAATGAAG	CTTCTCACCC	TGCACATCAA	GACCCAGCTC	CAGAAGCTAG	ACCTGAT TCT	3480
ACTAAACCAG	ATGCCAAAGT	AGCTGATGCG	GAAAATAAAC	CTAGCCAAGC	TACAGCTGAT	3540
TCACAAGCTG	AACAACCAGC	ACAAGAAGCA	CAAGCATCAT	CTGTAAAAGA	AGCGGTTCGA	3600
AACGAATCGG	TAGAAACTC	TAGCAAGGAA	AATATACCTG	CAACCCAGAG	TAAACAAGCT	3660
GAAC TTCCAA	ATACAGGAAT	CAAAAACGAA	AACAAACTCC	TATTTGCAGG	AATCAGCCTC	3720
CTTGCGCTCC	TTGGTCTCGG	TTTCTTACTA	AAAAATAAAA	AAGAGAACTA	AACTAGCCCT	3780
CCTATAGAAA	AATCCCCCAA	GCATTATAGC	TCGGGGGATT	AATTTTGTGA	CAATATTTGT	3840
TGTCCTAATA	AACTTGATTA	GGATTTT TTA	TTAAGCCTCT	TTCATAGCAA	AATAAGCTCG	3900
TACTTTGGGT	GCAACTTG TG	TTCCGAAGAG	TTCAATAGCT	CTCAGAACCT	GGTCATGAGG	3960
CATAGAACCA	AGCGGTAGAT	GAAGCATGAA	GCGGTCCAAT	CCTAAATCCT	CTATCATGCG	4020
AATCAATTTT	TCGGCCACCT	GATCTGGATT	GCCAAACAAAC	ATGGCGCCAT	TTGGCCCTAC	4080
CTGCTCCAAA	TATTGCTCAT	AACGCAATTC	CTGCCAGTGC	GGACGGTCTT	TGGAAATAGC	4140
ATCCACCACT	TGCTTAGTCG	GATGGAAATA	ATCTTTCACC	GCCTGCTCAC	CATCTTCCGC	4200
AATCCACCCC	CAAGAATGGG	CTCCCACTTT	CAAGTCTTTG	TCAGCATGGC	CCCTTCGCTT	4260
CCAATCTCAC	GATAAGCCTG	AATCAACTTT	TTAAAATAAC	GTGGATTACC	ACCAATAATA	4320
GCATATACAA	TCGGTAGACC	AGCCTGAGCA	ATCTTCACTG	TTGATTGCAG	ATGACCACCT	4380
GTAGCTATCC	ACAAGGGCAA	TTTGTCTCTGA	ACTGGACGAG	GATAAACTTC	TTTACCAGCA	4440
ATCGTTTGAG	TCAATCGACC	TTGCCAGTCT	AACTTGGTCT	TTTCATTGAC	TAAGTGAAGC	4500
AAGTCTAATT	TCTCATCAAA	AAGAGAGTCG	TAGTCTTTCA	AGTCATAACC	AAACAGAGGG	4560
AAAGATTCCG	TGAAAGAGCC	CCTTCCAGCC	ATAATCTCCG	ATCGTCCATT	TGACAAAGCA	4620
TCGATAGTGG	CATACTGTTG	GAACAAACGA	ATCGGGTCCA	TGCTTGACAG	AATGCTGACT	4680

611

GCACTGGTCA AACGGATTTT CTTGGTATTG ACTGCCCCAG CGGCCAGAAC AATCTCTGGG	4740
GCTGATACTG CAAAATCCGC CCGATGGTGC TCACCAATCC CATATACATC CAAACCAACC	4800
TTGTCAGCCA GCTCAATCTC TGCCACCAAC TGGCGAATGC GTTCAGCATG ACTGTAAGTT	4860
TGTCCAGTCC CTTCAAGCTC CGTTATTTCC CCAAATGTTG AAATTCCCAA TTCTACCATT	4920
GTGATTCTCC TTATCTATCT CTGTACTTCA ATTTGAAAAA TTATTCTAAC ACGAATCTTG	4980
AGTACAAGCA ACCGATTTGC TCATTAGAAA AAGCCTAGAT AACTAGACTT TTTTAGCTTA	5040
TTCTACCGTT ACTGACTTGG CAAGGTTACG TGGTTTGTCC ACATCGAGGC CACGGTGGAG	5100
GGTTGCAAAG TAAGCGACTA ATTGCGTTGG TACGACCATT GAAATTGGTG AGAGGTATGG	5160
ATGTACGGTC GTAAGGACGA TATCGTCGGT ATCTTTGGCT ACATTCTCTT CTGCGATAGT	5220
GAGGACTTTG GCACCACGGG CTGCGACCTC TTGGATATTT CCACGAGTAT GATTGGCAAG	5280
AACTGGATCT GACAAGAGAG CAAAACAGG CGTTCCTTCT TCAATCAAGG CAATGGTTCC	5340
GTGCTTGAGT TCTCCTGCAG CAAAGCCTTC AACTGGATA TAAGAAATCT CTTTGAGTTT	5400
GAGACTTGCT TCCATGGCTA CGTAGTAATC TTGACCACGT CCGATGTAAA AGGCGTTACG	5460
AGTTGTTTCA AGAAGTTCAC GAACCTTGAC TTCAATGGTT TCTTTCTCTG AAAGAGTTGA	5520
TTCGATAGAC TGAGCTACGA TTGACAATTC ATGAACCAGG TCAAAGGCTT GCGCTTTAGC	5580
ATTACCATTT GCTTCTCCGA CTGCTTTTGC AAGGAAGGCA AGGGCTGCGA TTGCGCTGT	5640
ATAGGCTTTA GTTGATGCCA CGGCAATTTT AGGACCTGCG TGAAGGAGCA TGGTATAGTT	5700
GGCTTCACGT GAGAGGGTTG AACCTGGAAC GTTTGTCACT GTTAAGCTTG GAATTCCCAT	5760
TTCATTAGCC TTGACCAAAA CTTGACGACT ATCCGCTGTT TCACCAGATT GGCTGATAAA	5820
GATGAAGAGT GGTTCCTTGC TGAGAAGTGG CATACCGTAG CCCCACTCAG ATGAGATTCC	5880
AAGTTCAACT GGTGTATCTG TCAATTCTTC CAACATTTTC TTAGAAGCAA ATCCTGCATG	5940
GTAAGATGTT CCAGCTGCAA GGATGTAGAT GCGGTCTGCG TCTTGAACAG CCTTAATGAT	6000
ATCTGGGTCT ACGACAACCT GACCAGCCTC ATCTGTGTAG GCTTGGATGA GTTTCCGCAT	6060
AACAGTTGGT TGCTCGTCAA TTTCCTTGAG CATGTAGTAA GGGTAAGTTC CCTTACCGAT	6120
ATCTGACAAG TCAAGTTCAG CAGTGTAGCT AGCACGCTCA CGACGATTTC CATCATAGTC	6180
TTGAACTTCC ACACTATCAG CCTTGACGAT TACCAACTCT TGGTCATGGA TTTCATGTA	6240
TTGGTTAGTT TCACGAATCA TAGCCATGGC GTCTGAGCAG ACCATGTTAT AGCCTTCTCC	6300
AAGACCAATC AAAAGTGGTG ATTTATTTTT AGCTACGTAG ATGACTTCAG GATCTTGTGA	6360
GTCAACCAAG GCAAAGGCAT AAGAACCACG GATGATGTGA AGGGCTTTTT TGAAGGCTTC	6420

612

AAGAACTGAG AGCCCTTC'TT CTTC CGCAA TTTTCCAATC AAATGAACGG CTATTTTCAGT	6480
ATCTGTCTGC CCCTTGAAGT GGTGACCTGC AAGGTATTCT TCCTTGATTT CAAGATAGTT	6540
CTCAATCACC CCATTATGCA CCAAGACAAA ACGTTCCGTC TCAGAGCGGT GTGGGTGAGC	6600
ATTGTCCTCA GTTGGTTTTTC CGTGAGTAGC CCAACGAGTA TGTCCGATAC CAGTTGTTCC	6660
CTCAACACCA GCTGTCTTGG CAGACAATTC TGCAATACGA CCAACCGCCT TCACCAAATG	6720
GTTATCAGCA CCATCTAGGA CAAAAATTCC CGCAGAATCA TAGCCACGGT ATTCAAGCTT	6780
TTCAAGCCCT TGAATCAAAA TATCAGTTGC ATTTGTGTTT CCAACAACAC CAACAATTCC	6840
ACACATAGTA TATACGACAC AGGCAAGCTG TGCTTTCTCC TTAAAAATTGG TATAGTCTAA	6900
TTTATCTTTT ATAGAATCAG CAAAAACAGT ATATACTTGT TTCTTTCACT TGTCAAGAGT	6960
AAAAATTGGT ATAGTTCAAA TTAAGCTCCT GTAAGCATAA AACTCTGAC CGATTGGGAT	7020
AATCAGTCAG AGTCCTTTTT AAAATCCATT ATTATCGCTT AATTCTTTGA ACCAGTGGCC	7080
TGATTTCTTC AGACGACGTT CTTGCGTTTC CAAGTCTAAT TCGACCAAAC CATAGCGATT	7140
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GTGGCACCA TCTTCAATGG CACGGTGAAG TTCACGAAGA TGACCTTTTA CAAAGTCAAT	7260
ACGGTAATCA TCTTGAATCA TTCCATCTTG ACGGAATTTT TCTTCCCTT CAACACCCAT	7320
ACCATTCTCA GTCAACATCC ACTCAATATT GCCATAATTT TCCTTGATAT TTTGGGCGAT	7380
GTCATAAATC CCTTGCTCAT AAATCTCCCA ACCACGGTGA GAATTGATTT TACGTCCAGG	7440
CATCACATAA GGCTCGTAAA AATGTTCTGG TAAGAGTGGA CTCTCTGGAT GCTTAGCAAA	7500
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CTGAAAAAGG GCCGCAATAC GAGCTGCCTT GACATCAGCA GGATGCTGGC TACGTGGATA	7740
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CTTAACAGCC CGGCTGCTGG CCAATTGTGT ATGATAGGCT ACCTTAACAG CTGCCTCTGC	7860
ATCCACCTTA TGTGGATAAT GGCATCATA AAAATAACCA AATTCTACAG GAACGATGGG	7920
CTCGTTAAAG GTAATCCATT GATCCACTAA ATCTCCATAA GTCTCAAAAC AAAAACGAGC	7980
ATAGTCTTCA TAGGCTGAGA CTGTCGCCTT ATTTTCCCAA CCATCACCAT CCTCTGAAG	8040
GGCAAAAAGT AAATCAAAAT GATAGAGATT GACTAACAGA CGAATTCCTT TAGCCTTAAT	8100
AGCCTCAAAG ACCTTACGAT AAAAATCCAC ACCTTGAGTG TTGACTTTTC CACAGCCTTG	8160
TGGA AAAATC CGTGACCACT GAATAGAAGT CCGAAAGGCT GTGTGACCAG TCTCTAACAA	8220

613

AAGCTCAATA	TCCCGCTCCC	AATTTTCATA	AAAAGTCGAT	GTCTTATCTG	AACCAATCCC	8280
ATTATAGTAA	CGATTTGGCT	CCACTTGGAA	CCAGTAATCC	CAGAGATTGT	CTCCCTTACC	8340
GTCACCAGCT	ACACGTCCTT	CTGTCTGCGG	TCCAGAAGTA	GAGGATCCCC	AGACAAAATC	8400
CTTTGGAAAT	CTTAGCATAC	ATTTACCTCT	TTATCTACTC	ATTTCTCCCA	TTATACAGAA	8460
AAAACAAGGT	AAAAACTAGT	TACATTTTTT	CCTTGTTTTT	CTTCTGATTA	TAGTTTTTAT	8520
TTCTTGCTTA	GGATTTC AAG	CGTTTCAAGC	ACGTTATCTG	CATGAACCTC	AATGGTGTCA	8580
CCAGTTGCCT	TGATCTTAAC	TTCTACAATG	CCATCGGCCG	CTTTTTTACC	AACAGTGATA	8640
CGGATTGGAA	GACCAATCAA	GTCACTATCG	CTAAATTTAA	CACCGACACG	TTCGTTACGG	8700
TCATCTGTCA	AGACTTCATA	ACCAGCTCCC	ATCAAGCTTG	CTTCAAGTTT	TTCTGTCAAG	8760
GCTTGCGCTT	CTTCATCCTT	GACATTGACA	GTAATCAAAT	GCACATCAAA	TGGTGCCAAAT	8820
TCTTTAGGGA	AATTGATTCC	CCAAGCGTAA	CGGTATTAC	CTTTTGCGGT	TTTGTTAACA	8880
AAGAGGCGAG	CGTGTTGCTC	CATCACTGCT	GAAAGAAGAC	GGCTGACACC	GATACCGTAA	8940
CATCCCATGA	TGATTGGCAC	AGCACGACCA	TTTTCATCCA	AGACATCTGC	TCCCATGCTT	9000
GCTGAATAGC	GAGTTCCGAG	TTTGAAAATA	TGACCGATCT	CAATACCACG	CGCAAAGTTA	9060
AGGACACCTT	GTCCATCTGG	GGAAATTTCA	CCCTCACGAA	CTTCACGGAT	ATCCACATAT	9120
TCTGCAGTAA	AATCACGGCC	TGGGTTTACA	CCAGTCAAGT	GGTAGTCATC	TTCGTTAGCA	9180
CCGACAACTG	CATTGCGAAC	ATCTTGTACC	TTACGATCTG	CAATAATTTT	AATATTCTCT	9240
GGCAAACCAA	CTGGTCCAAG	TGAACCAAAT	CCTGCTTGAA	CAACATTTCG	CACCTTCTTCT	9300
TCGCTAGCAA	CGTCAAAGAA	ATCTGCTCCC	AAGTGATTTT	TCAACTTGAC	TTCGTTGAGT	9360
TGGTCATTTC	CAACTAGAAG	GGCTGCAACA	AGCTCACCAT	CTGCAATGTA	GAAGAGGGTT	9420
TTAATCGTTT	GTTCTTCTGG	AACATTGAGG	AAGGCTGCAA	CTTCATCAAT	TGATTTAACA	9480
TCTGGCGTTG	CAACACGAGT	AACTTCTTCT	TCAGCGACAA	CACGGTTGCT	TGGTTTGTAC	9540
TCGTTTGTG	CCATTTCTAA	GTTAGCTGCA	TAGCTAGACT	CACTTGAGTA	AGCAATGGTA	9600
TCTTCACCAG	AGACTATCCA	TTTGAGCAAT	TCTGCCTTGA	TTTCTTCTTG	CACCTTCTGCA	9660
GGAATTTCTG	CAAATGAGGC	AACTGACTTG	TCCAAGACAA	CCCAGCGGTC	AAGGTCTGTA	9720
CGAGCAGATG	TAATGGCCAT	AAATTCTTGG	CTATCCTTAC	CACCCATGGC	TCCACCGTCA	9780
CCAATAATAG	CCTTGAAGTC	TAAACCACTA	CGAGTGAAAA	TACGCTCATA	GGCTGCTTTG	9840
TACTCATCAT	AAACACTATC	CAAACATCA	TAGTTAGCGT	GGAAACTATA	AGCATCCTTC	9900
ATGATAAACT	CACGTGTACG	AAGAAGTCCA	TTACGCGGGC	GTTTTTCATC	ACGATACTTG	9960

614

GGCTGAATTT	GATAAAGGTT	GAGTGGCAAT	TGCTTGTAAG	ATTTAACAGA	ATCACGGACA	10020
ATAGCTGTAA	AGGTTTCTTC	GTGAGTTGGA	CCTAAGATAA	AGTCTGATTT	TTCACGGTTT	10080
TTTAGTTTGT	AAAGGTCTTC	ACCATAGGTT	TCGTAACGAC	CTGATTCACG	CCACAATTCT	10140
GCTAAGAA	GGGCTGGAGC	CAACATCTCA	ACAGCACCAA	TCTTTTCGAA	TTCCTGGCGC	10200
ATGATGTTTT	TAGCTTTTTC	AATCACACGG	TTGGCAAGTG	GTAAGATAA	ATAAACACCT	10260
GCTGAAACTT	GGCGAACATA	ACCAGCACGC	AACATAAGAG	CATGGCTGAT	AACTTGAGCA	10320
TCGCTTGGCA	TTTCGCGAAG	CGTTGGGATA	GGCATTTTAC	TTTGTTTCAT	AATATTCCTC	10380
GATTATCTAA	AAAAGAGTCG	CATAATGTCA	TTCCAAGTCA	CAGCAATCAT	CAAGACAACC	10440
ATGATGACCA	CTCCGGCCAA	GGTGACATAG	GTTTCAATTT	CTTGTTTCAA	TGGTTTGCGG	10500
CGGATGGCTT	CTAGGATATT	GAGCACAATC	TTACCACCAT	CCAAGGCTGG	AATCGGAATA	10560
AGATTAAAAA	TCCCAATATT	GATGGAAATC	ATTGCCAAGA	AGTACAAGAT	ATTTTCAATT	10620
CCATTTTTAG	CAGCATCACT	ACTTGCCTTA	AAGATAGCAA	CAGGTCCACC	CAACTTGTTC	10680
AAATCTGGTT	GGAAAATCAG	ATTTTTCAGA	GCTGAGAGAA	TTCGGAGAGC	TGAGTCAGCA	10740
GCACTTGTA	AACCACCTAC	AAACATGGAT	AGAAAATCTG	ACTTAACCCC	CGGTTGAACA	10800
CCTAGAAGGT	AACGACCTTG	ACTATCTTTG	GGTGAACAG	TGACTTGTTT	GTCACTCCCC	10860
TTTTCAGAAA	TAGTCACATC	CAAAGTCGGT	GCCGTCTTAT	CTTTGGTTTC	TGTTTCCACA	10920
GCTTGATCA	AGCTTTCCCA	GTTGCTAACC	TCATGTGAGC	CAATCTTGGT	AATTTGTGCC	10980
ATTTCTGGTA	CTCCTACCTT	GGCCAAGGCA	CCTTGGGGCA	TGATATGGAA	CTGATTGGTA	11040
TCAACATCTC	TGACACCACC	CTGCATAAAG	ATTAAAACCC	AAAAACAAC	GACACCTAAG	11100
ATAAAATTGT	TCATAGGACC	TGCAAAATTG	GTAATCAGTT	TGCCCCAGAT	AGTCGCATTT	11160
TGATATTGAA	CATCTAAAGG	TGCAATCCGA	ACCTCAGTAC	CATCTGCTTC	CACAACCGTT	11220
GCATCGTGAT	CCACTGCAAA	TGTTTTTCT	TCTTCCAGAA	CCAATCCTTT	GATAAAGAGC	11280
TTGTCTTCAA	AATCAAACCTG	GGTCACCTGC	ATAGGGAGGG	CTGTTTGATC	CAATTTTTTA	11340
CCTGAGAGAT	TGATGCGTTT	AACCTTACCA	TCATCAGCAA	GTGTCAAAC	AACAGGCGTT	11400
CCTGTCTTGA	TTTCAGTTGT	ATCATCACCC	CAACCGGCCA	TGCGGACATA	GCCACCCAGA	11460
GGCAAGATTC	GAATGGTATA	GGCCGTTC	TCCTTGCCAA	TGTGAGCAAA	AATTTTAGGT	11520
CCCATACCGA	TGGCAAATTC	ACGTACTAAA	ATCCCTGATT	TCTTGGCAAA	GTAAGAAGTA	11580
CCGAACCTCGT	GCACCACTAC	AATAATCCCG	AAAACCAGAA	TAAAGGTAA	AATTCCGAGC	11640
ATAGCGTTTC	CTCCGTCTTT	TGATTAAAAG	AGTCCAAATA	AGTGCATGAT	TGGAAATACA	11700
AGCAACATAC	TATCGAAACG	ATCCAAAACA	CCACCATGTC	CAGGGATAAA	TTTCCAGAA	11760

615

TCCTTAACAC CAAAATGACG TTTGATCGAA CTTTCTAGTA AATCACCAAA TTGTCCAGCA	11820
ATGCTAAAGA AAATAGCAAA GACTGACATC TTGTAAATTC CATATGGAAG AGCAACTGTA	11880
CTGTCAACTA TCATAAGGAT AATGGTACT AAAATTGCTC CTAAAATACC ACCCAAGGCA	11940
CCCTCAAGGG TTTTATTAGG CGATACCCTT GGTGCTAACT TTCGTTTCCC ATAGTTCATC	12000
CCAACAAGAT AGGCACCACT GTCTGTCGCC CAGACGATAC ACAAGGCTAA GAGAGCCTTG	12060
TCCAAACCTG CAACACGAGC ATCTAGTAAA GCATTAAATC CAAAGCCCAC GTAGAAGCTC	12120
ATAGCAAGAG GGAACCCG C ATCCTCAATC GTATAAGACT TGCTAAAAAC GGTCGTTCCT	12180
AACATGATTG AAATCAAAAC ACTATAGGCA ACCACATTCC CATCAACTGG CAAAAAAGTC	12240
AGGTAATTCT CCAAGGGAAT GGTCAATGCA AAGGTTGCAA AGAGGGTCAA GAGGCCCTCC	12300
ATCGTCATGG TCTCTAGACC TCTCATCTTC AAAAGTTCAT GCATGGCTAG CATGGCTATG	12360
ATTCCGATTG CTATCTGAAG CAAGAGGCC CCAATCATTA AAATTGGTAG GAAAATAGCC	12420
AGGGCAATCC CTGCAACAA GGTCTTTTC TGTAAATCCT GGTCATATT TCCTCCTAAA	12480
CTCTCCAAA TCGGCGATGA CGACGATTAT AGGCAAGAAT AGCTTCCTGC AAGGCCGCTT	12540
CGTCAAAATC AGGCCATAAG GTGTCCGTAA AATAAAGCTC ACTATAGGCT CCCTGCCATG	12600
GAAGGAAATT GCTCAAACGT AATTCTCCAC TAGTACGGAT AATCAAGTCT GGGTCTCGTA	12660
AGTCCTTAGG CAAATGCTGA GTAAAGAGAT AGTTACCAAT CAATTCCTCT GTGATGTCAC	12720
CTGGGTTGAT TTTGGCATCT AAAACATCCT GGGAAATCAA CTTAAGCGCC TGTGTAATCT	12780
CAGCACGTCC ACCATAGTTA AGAGCAAAAT TAAGAATCAA TCCTGTGTTG TTCTTAGTCA	12840
ATTCCTCAGC CTGGTTAAA GCTTCAAAGG TTTGCTTAGG CAGGCGGTCT GTCTCCCCAA	12900
TCATTTGAAT CTTAACATTA TTCGCATGTA GTCCCGGAC ATAATTATCA TAAACTCTA	12960
CTGGCAAGTT CATGATAAAC TTGACTTCCT GATCTGGACG GTCCAGTTT TCCGTAGAAA	13020
AAGCATAGAC CGTAATAACC TTGACGCCCA GTTTGTTGGC TGCCTTGGTC ACGGTTTGCA	13080
ATGCTTCCAT GCCCGCCTTA TGTCCAAAA CTCGCGGTG CATACGTTT TTAGCCCAAC	13140
GGCCATTGCC ATCCATGATG ATGCCGATAT GAGCAGGAAC CTGTGTCGGA ACCTCTACTT	13200
CCACAGCCTT ATCTTTCTTA AAAAATCCAA ACATGATCTT ATTCCTATTC AAAATCTAT	13260
CGTTTCATTA TACCATATTT CCCCATTTTC TTCTATCACT AAGCTATTTA TTCTCAGGCA	13320
CCAAGCCCAT TTTTCAAAAA AATAAGCCGC CTGATTGGGC GACTTTATTT TTATAGGGAG	13380
ATTATTATGA AAAAGTTTGA GGAGTTTAAG TTAAGGTCTT CTTAACTTAT GAACCTAGTG	13440
TACACTCCCT AGCTTAAAGT TTCCTTAAGT ATTTTAAAA ATCAAATTTT TCCATTTCTC	13500

616

CTGCCAATTT TTCTTGGATA AACGTGTTTG ATAGAGTTCC ATTCGGTCTT CATTTTCTAA	13560
GAAATGAGGA GTTGGACGAA CTTGAAAATT CAAAATATCC TCCAAACCAT AAGGTACATA	13620
GAGTTCAAAA TCTAATTCTT CATTCAAGCG CAGTCCAACCT GCCGTACACC GTTCTGGATA	13680
CTTACTCATA GCATCACGAG AACTGGTATA GGAAGCAGTG TGAGGACTGT GCTGATGCAT	13740
ATAGACCTGA TTTTTC AATT CCCACTGGTA CTGAGGAAAA TCCTCTCTCA GCTTTTCTC	13800
CAGTAATAAG GTTTCCTCAT AAGAAAAATC TGGATCAAAG AAAATCACAT CTATATCTGT	13860
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TGCTGCCAAC CACGAGTCTT TCAAACCAAG GTCTCGGATG ATCGTCAGAA TGGCCATCAT	13980
ATCTGGACTT TCTCTAAAAG CCTCTAAGAT TTCTTGCTTA TTTTTCCTG TATTCTAATC	14040
CTAAGTGCTC ATATGCCTTA GCAGTCGCCA CCCGTCCAGA CCGTGTCCGC ATGATAAAAC	14100
CTTTTGAAT CAAGTAAGGC TCATACATGT CTTCAACTGT CTCACGCTCT TCGGCGATAT	14160
TCACAGAAAG AGTTCCTAGA CCAACAGGTC TCCTCACTGTA CATCTCAATC ATGGTGCGAA	14220
GGATTTTGTG ATCCACATAG TCCAAACCTT CATGGTCAAC ATCCAGCATA GTCAAAGCCT	14280
TATCGGTAAT AACATCATCG ATAACCCCAT TCCCCATTAT CTGGGCAAAA TCGCGCACGC	14340
GCTTGAGGAG ACGATTGGCA ATACGAGGGG TTCCACGACT ACGTAGGGCC AACTCAGATG	14400
CTGCCTCATG GGTGATTTCC ATCTCAAAAA TATCTGCCGT CCGCTCGACA ATTTCTGTCA	14460
AGTCAGCATG AGCATAATAC TCCATATGAC CTGTAATCCC AAAACGTGCC CGTAGTGGAT	14520
TTGAGAGCAT ACCAGCCCGA GTCGTCGCAC CAATCAAGGT AAAAGGAGGC AACTCCAAAT	14580
GAACACTGCG ACTGCCTTCA CCAGCCCCAA TCATAATATC GATGTAGAAG TCCTCCATGG	14640
CACTATAAAG CACTTCTTCC ACTGACATGG GTAAGCGATG AATCTCGTCA ATAAAGAGGA	14700
CATCTCCAGG CTCTAAATCA TTCAAAATCG CTACCAAATC ACCCGCTTTT TCGATAACAG	14760
GACCAGACGT TTGCTTGAGA TTGACTCCCA GTTCATTGGC AATGACAAAA GCCATGGTTG	14820
TTTTCCCAAG CCCTGGAGGG CCAAATAAGA GCACATGATC CAGCGCTTCA TCCCGCATTT	14880
TAGCGGCTTC GATAAAGATC TGAAGTTGAT CCTTAACCTT ATCCTGACCA ATATATTAC	14940
GTAAATACTG AGGACGGAGC GTGCGTTCTA CTAACCTCTC ATCACCCTAT ATCTCATTAT	15000
CTAAAATTCT ACTCATGGCT CTATTATATC AAAAAAACA AGCCACAAAC AAAAAAGCCA	15060
CCTGATTGGG TGACTCCTAA GTTTAGCACT TATGTGGTAT AATATTATAC GGCACCTCTA	15120
CACCGCTTAC GAAAGGAGGT GAGATAGCCC ATGATGGAAT TAGTACTCAA AACTATTATC	15180
GGACCAATTG TGGTCGGTGT CGTTCCTCGT ATAGTCGATA AATGGCTAAA CAAGGACAAA	15240
TAGTGTCAAA AAAGACCTCA AGCTTATTTG GTCGTGAGCT TGGGGTCTTT TCTAGCCTAT	15300

617

GATATAGAAC TAGTACTCAA TTCCTTTTTA TTATCCCATTA GTTCACGAAT TTTGTCAAAA 15360  
 CTTTACATTT TCTTCAACCG CTGTACGACA AGACGGTTAA GATTAAGAGA ACGTTAGGGA 15420  
 TTCTATCAAT TTCATAGAAA TTTTGATTTC GTAAACGAAG AGACAATCTT ACATGTCACT 15480  
 TCTCATTTAA TACGCCACTA CTAGACAAGC AAAATCATT AATTACAGTAGT TCCAGTCCTT 15540  
 CAATTAACAG TCACTTACAA TCAAATTGAG TTTGAACTAG CTGAAGCGAC CACAGACCTA 15600  
 TTTCTTAGTC ATATTCGCTA AAAAAATCCC CGCCAAAATC TCAAAAAGTC CCCGCCAATT 15660  
 CCCCAGCAA AATCCGAAAA ATACCGAAAA ATATCGAAAA ATTATTTTTA GAATAGTCCC 15720  
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 TATGAAAAAG AAAAGTTTAG GATTTTATTA AATAAAGTTA GGAGGTCTTT ATTTAATAAC 15840  
 TACATGATAC AAGACGAAAC TTAATACTAG CTTAACTTTT CTAAAATTTT ACTATTTTGC 15900  
 AAAAAATTTT TATCACCAGC ACCTCACCAA TCGAGTAGGG GATAATCTCT AGCCCCCTCTC 15960  
 ACACCACCGT ACGTGCCGTT TGGCATACGG CGGTTCAACT AACTTTTAAC GCATGTCGTT 16020  
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 CACGTTAAG TACCGACTTC TGAGCTACTA ATTGATAATG GTCGCCCCAG CCAGATACCT 16140  
 TATCTGCTAT CCATTTAGGA ACTCCTAACT TAAGCAATCC CCATAATCGT CTCGATTCTT 16200  
 TCTTCCATTG CTTCCAGATA ATCACTCGTA GCGGAGTACG CAAGCGCTCA TCTATGCTGG 16260  
 CGACTATACT TTTTCATATT CCCAATGAGC AATAGTTTAT CCATCCTCGA ATAGACAAAT 16320  
 TCAGTTGCTC AATACGTCTT GTTAGGTCTA TACTCCATTT CCTCTGTGTT AGTTTCTTCA 16380  
 ATTTAACTT AAATCTCCGA AACTATCTT GATGTGGACG GCTTTTCCAA CCATCTGATA 16440  
 ATTTCCAGAA CCCAAACCT AGATATTTCA ACTCTCTTGG TCATGTTTAC TTTCAAACCT 16500  
 AGCCGTTTCT CAATAAACGA CTGACTGAAT ACATC 16535

(2) INFORMATION FOR SEQ ID NO: 75:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8136 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

CCAGAGCGTT GCGTCCGAAA GTCTATCCAG ACACGCTCT TAAAAACAA AAGGAGAAAT 60  
 GATGCATACT TATTTGCAAA AGAAAATTGA AAATATCAAA ACAACCCTAG GTGAAATGTC 120

618

AGGTGGTTAC CGTCGTATGG TTGCGGCTAT GGCTGATTTA GGATTTTCAG GAACTATGAA	180
GGCTATCTGG GATGACCTCT TTGCCCATCG TAGTTTGGCC CAGTGGATT TTTGCTGGT	240
TTTAGGAAGT TTTCCTCTCT GGCTGGAGTT GGTTTACGAA CATCGTATTG TTGACTGGAT	300
TGGGATGATT TGTAGCTTGA CAGGGATTAT CTGTGTAATC TTTGTATCGG AAGGTCGAGC	360
AAGTAATTAT CTTTTTGGCT TGATTAATC TGTATTATC CTTATTTTGG CCCTACAGAA	420
AGGCTTTTAT GGTGAGGTGC TGACGACACT TTAATTCACA GTCATGCAGC CAATTGGACT	480
TCTAGTTTGG ATTTATCAGG CACAGTTTAA GAAGGAAAAG CAGGAGTTTG TCGCGCGTAA	540
ACTGGACGGC AAGGGCTGGA CAAAGTATCT TTCCATTAGT GTGCTTTGGT GGTGGCCTT	600
TGGCTTCATT TATCAGTCTA TTGGTGCCAA TCGTCCCTAT CGTGATTCAA TCACAGATGC	660
AACCAATGGG GTAGGGCAA TCCTCATGAC AGCTGTTTAC CGTGAACAGT GGATATTCTG	720
GGCGGCTACC AATGTCTTTT CAATCTATCT CTGGTGGGGA GAAAGCCTGC AAATTCAAGG	780
GAAATATCTA ATTTATCTCA TTAACAGTCT AGTTGGTTGG TATCAATGGA GCAAGGCAGC	840
TAAGCAGAAT ACTGATTTAC TTAAC TAGGA AAAGATGTTT GAAAGTGCTG TTTTGAGATT	900
TCGATTAAAA CAGATATAGT TGATAATCAA GGATTTATAG TATGAAAAAG AGGATCGGCG	960
GGTCTCTTTT TGTGTGTGAA AAGATAAAAA ACTCAGTAAC CTAGAAATAA GACAACTGAA	1020
GCTTTACTCT ATATTCAATT TTTAGGAATG AGAAGGTCTA GATAAAATG GACAACTTCC	1080
TGGTCTGTGA AATCTTGACC TTTTTTGAGC CACCAGGTCA ATGTCTCGAT AAAGTTGGAC	1140
ATGACCAAGT GTTGGAGGTA AGAAGTAGGC AGATTAGGT GGGCTTCTTT TAAATTATCA	1200
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TAGCGGCAGA GCTGGTCCAG AAGAAGCTCC TTAATCTCAT AGTGACAGTA AAAGGTGGAT	1440
CGTCCCACAT CTGCGAGATC AATGATATCC TGAACAGTAG TGGCCTCGTA GCCCTTAGCA	1500
TTCAAAAGTT GTATAAAAGC TTGATAGATG GCTTTTTTGG TTTTGCTGAT ACGGCGGTCA	1560
ATGTTAGTCA TATGGACACT TAAGGCAAAT TGTTTCAAGC TGAATAAAGC TGACGTTTTG	1620
CTTCTATCCT TTCTTTGAGT TTTAGTGGAT AATGATAATG AACAAGGTGT TCATAAATCT	1680
ATTATAACAA AGGAATGAGA AATATGAAGG CAAAATATGC TGTTTGGGTG GCTTTTTTCT	1740
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TTCTTGCTGA CTCTGTGCAT GACTTGGGAG ATGCGATTGC AATTGGAATA TCAGCTTTTC	1860
TAGAAACAAT CTCCAATCGT GAAGAAGACA ATCAGTACAC CTTGGGCTAT AAGCGGTTTA	1920

619

GCCTGCTAGG AGCCTTGGTA ACAGCTGTGA TTCTCGTAAC GGGCTCTGTT CTAGTCATTT	1980
TGGAAAATGT CACGAAGATT TTGCATCCGC AACCAGTCAA TGATGAGGGG ATTCTCTGGT	2040
TAGGAATTAT TGCGATTACT ATCAATCTGT TAGCGAGTCT GGTGGTTGGT AAGGGAAAAGA	2100
CAAAGAATGA GTCTATTCTG AGTCTGCATT TTCTGGAAGA TACGCTAGGG TGGGTAGCTG	2160
TTATCCTGAT GGCGATTGTT CTTCGATTTA CGGACTGGTA TATCCTAGAT CCTCTTTTGT	2220
CCCTTGTCAT TTCTTTCTTT ATTCTTTCAA AAGCCCTTCC ACGTTTTTGG TCTACACTCA	2280
AGATTTTCTT GGATGCTGTG CCAGAAGGTC TTGATATCAA GCAAGTAAAG AGTGGCCTGG	2340
AGCGATTGGA CAATGTGGCC AGCCTTAATC AGCTTAATCT CTGGACTATG GATGCTTTGG	2400
AAAAAATGC CATTGTCCAT GTTTGTCTAA AAGAAATGGA ACATATGGAA ACTTGTAAG	2460
AGTCTATTCG AATTTTCTTA AAAGATTGTG GTTTTCAAAA TATTACCATT GAAATTGATG	2520
CTGACCTAGA AACTCACCAA ACCCATAAGC GAAAGGTGTG TGACTTGGA CGGAGTTATG	2580
AGCATCAACA TTAGAAAAA GTGAAAAATA CTGGGTACT ATCTTATTG GAATAGAGTA	2640
ATTTCTTTAT TATTTAAATA TTTCAAAAAT TGGTAAGAGA AGAGCATTGT ATAACTCCA	2700
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TGAGAGGAGG TTAGCGTGTG AATATTAAAT CTGCCAGTGA TTTGTTGGGA ATTTACGCGG	2880
ATACGATTCG GTATTATGAA CGGGTTGGTC TTGTGCCACC GATTACTCGT ACTGCTACTG	2940
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CGGCGGGTGT CTCTGTAGAT AGTTTAGTTG ACTATATGTC GCTCTACCAA AAGGGAGATG	3060
AAACGAGAGA GGAGAGGCTT GGTATTTTAG AAGAGGAAAA GCAAAAATTA GAGGAGCGCT	3120
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GTGGACACGA AGCGATTGGG ATTGTTGAAG AAGCTGGGGA AGCCATTACG ACGGTGAAAC	3420
CAGGTGATTT TGTGATTGTC CCTTTTACAC ATGGATGTGG TGAGTGTGAT GCCTGTCTTG	3480
CTGGATTTGA CGGTCTTGC GACAATCATA TTGGCAATAA TTTGGGGGGT GATTTTCAGG	3540
CAGAATATAT TCGCTTCCAC TATGCAAAC GGGCGTGGT TAAAATCCCT GTCAACCTT	3600
CTGACTATAC AGAAGGGATG CTCAAGTCCC TTTTGACTCT TGCAGATGTC ATGCCGACAG	3660

620

GCTATCATGC GGC GCGTGT GCAAATGTTT AAAAAGGGGA CAAGGTTGTT GTTATCGGTG	3720
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TTCATAATGG AGGGCGTATG GGCTTTGTAG GAGTCCCACA CTATAATAAT CGTGCTCTTG	4020
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ATAAGCAATT TTTACTAAAA GCCGTCCTTG ATGGTGATAT CAATCCAGGT CGCGTCTTTA	4140
CTTCAAGTTA TAAACTGGAA GATATCGACC AAGCCTATAA AGATATGGAT GAACGTAAGA	4200
CAATTAAGTC TATGATTGTA ATCGAATAAA AAACGAATAG GAGTTTTAGA ACTCTATTCTG	4260
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AGCATGGTCA GGCTAGGGAT TTTCCGACCG TGGAGGACTT CCTTGTTAAG AATATCCATA	4380
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GGCGGAAGTT GGTCTCCCAA GCTCTGAATG GCCTCCTTCA TTAAGTCATA GCCAGACTGG	4620
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TGCTTGGGTT TGTGGGACTC GCCTGTCTTG AGGTGCTTGG TGTAGCCCAG CTCTTCAGCA	5160
ACGGTTAAAA TACGGTGTCT GGTTCCTTCT GTAACAGATA GGCTCTGGTC GCGGTTGAGG	5220
ACGCGGGATA CGGTCGCGAT AGAGACAGAG GCTAGCTGTG CAATGTCTTT TAAGGTAGCC	5280
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GATTACCGT TAAGATGGCT TAACGGACAG TCAAAGGAGA ATTCATATGG CACAACATCT	5460

621

TACTACTGAA GCCCTTCGCA AAGACTTTCT TGCTGTTTTT GGTCAAGAAG CAGATCAAAC	5520
CTTCTTTTCA CCAGGCCGCA TTAATTTGAT TGGTGAACAC ACAGACTACA ACGGTGGGCA	5580
CGTTTTTTCCT GCTGCTATTT CCTTGGGAAC TTACGGTGCA GCTCGTAAGC GTGACGACCA	5640
AGTCTTGCGT TTCTACTCAG CTAACTTTGA GGACAAGGGC ATTATCGAAG TGCCTCTCGC	5700
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TGATTTGAAG GACAATGTCG TTGTTATCAT GAACACCAAC AAACGCCGTG AATTGGCGGA	6120
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CTTGATATTT CAGACTCTGG GTGAATTGGA CGAGTGGGCC GTTGACCAAT ATAGCTATCT	6240
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TGGTGGCTGT GCcATTGCCT TGGTTCAAAA AGATACTGTT GAGGCCTTTA AGGAAGCTGT	6540
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TATCGCTTAT CGTGTTCCAT CTGACTACGG AGAACTTGAA ATTACCATCA ATCTCTCTAA	7080
GCCTGAAAAA GATCCCAAAG AGATTGTGGC AGCCAAGTTG GTGCAAGCTA GTAATTATCC	7140
TCAGTGTCTAG CTTTGTCTAG AGAATGAGGG CTACCATGGT CGAGTTAACC ACCCAGCTCG	7200

622

TAGCAATCAC CGTATTATCC GTTTTGAAAT GGTGGGTCAG GAATGGGGTT TCCAGTATTC	7260
GCCCTATGCT TACTTTAATG AGCATGTAT CTTTTTAGAT GGCCAGCATC GTCCCATGGC	7320
CATTAGTCGT CAGAGTTTGG AACGTCTGTT GGCTATCGTA GACCAGTTTC CAGGATATTT	7380
TGCTGGATCT AATGCCGACC TGCCGATTGT GGGGGGCTCT ATTCTAACTC ATGATCATTA	7440
TCAGGGAGGC CGTCACGTAT TTCCTATGGA ATTGGCTCCC TTGCAAAAGG CCTTCCGATT	7500
TGCTGGTTTT GAGCAGGTCA AGGCTGGAAT TGCAAGTGG CCCATGCTCG TCCTACGTTT	7560
GACTTCGGAT TCCAAAGAGG ATTTGATCAA TTTGGCTGAT AAGATTTTGC AGGAATGGCG	7620
CCAGTATTCA GATCCTGCAG TGCAGATTTT GGCAGAGACA GACAGGACAC CGCATCACAC	7680
TATCACACCC ATTGCCCGCA AACGCGATGG ACAGTTTGAG TTGGACTTGG TCTTGCGAGA	7740
CAATCAGACT TCAGCAGAGT ATCCTGATGG TATCTATCAT CCCCACAAGG ATGTCCAACA	7800
TATCAAGAAG GAAAATATCG GCTTGATTGA GGTATGGGC TTGGCAATCT TGCCACCACG	7860
TCTGAAAGAA GAAGTGGAGC AAGTCGCTAG CTATCTTGTA GGAGAAGCTG TTACAGTTGC	7920
CGATTATCAT CAGGAGTGGG CAGACCAACT CAAATCCCAA CATCCAGACT AACGGATAAA	7980
GAAAAAGCCC TTGCAATCGT CAAGGACTCT GTGGGTGCTA TCTTTGCGCG TGTACTTGAG	8040
GATGCAGGAG TCTACAAGCA GACAGAACAA GGCAGACAG CCTTTATGCG CTTTGTGGAA	8100
CAGGTCGGAA TTTTACTAGA CTAGGAGCTT TCTCGG	8136

(2) INFORMATION FOR SEQ ID NO: 76:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10011 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

CCCATAGTGA AGAGTGGCCA TAAGAAGGTC TTCTAGGCTT AATTTAGGTT TTCGTCCACC	60
TTTTGCGTGT TTAAGTTGAT AAGCTGTTTT TAACACAGCT GAACATCTCT TCAAAAGTCG	120
TGCGCTGAAC ACCAACAAGA CATTTAAATC GTGTATCAGT TAGTTGTTTA CTTGCTTCAT	180
CATTCATAGA ACTACTATAC CATGTTTTGT TTCGCAGGAA GTCTAATATT GTCAAATACT	240
GGAACGCTCA TTGCTGGGAT ACGGAATAAG ATTGGCCCAG CTTCGATAAC TGGGATACCT	300
GGTTCAAAAC CAAGGTCTGT TGCAGCGATT GGTGTAAAGA TATCGTAACC TTTCATAAGG	360
TCTTCGTTTA CATCTTTCAC CATAACTGCA TCACAGTGAA CATCGTAACC ACGGTTTGAA	420
AGTTCTTCTT CTAGAGCACT TTTAATTTGG TGACTTGAGT TAACACCTGC ACCGCAGGCA	480

623

GCAAGAATTT TAATCATTTG GATTTCCTCC GATTTTATTT TTTAATAGAC AAGATTAAGC	540
GGTTGCTTCA GCAATGTAAG CATAAAGGC TTCTGGTTCA GAAATTTTTC ATAGGTCTTC	600
AAGATGACCA TTTCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTTTCG TTTGACTTGA	660
ACTTGAATTA TTGATGATAA AGAAGAGCAA GGATACTTCT ACTTCCTTAC CTGGCGCAAT	720
CATATTATGG AAAGTCACCG GTTCTCTAA TCGAACAACC ACCACTTTCT CAGCTAGATT	780
ATGAACAATA TCTGTGTGAG GAATCATTAC ATTTGCAAGT CCTTTCCTAG AAATTCATA	840
TATAAACCAAG TTGGAAATGA CTTTTCACGC GTGATCAAGG CTTACAGATA AGTTGGAGTG	900
ACAAATTTCTC GTTCTTCCAA CAAGCTTGCT ACCTGATCAA AAAGTTATTC TTGATTATCC	960
GCTTCTAAGC AAAACACAAG GTTTTTGTCA AAGAAATAAT CTAATACCAT AAGGTTTTCC	1020
CTTCTTTCCA TTAACTTTAT GCTATAAGTA TAACACTATA TGAAATCGTT GTTAATTACT	1080
TTCTATTCTT TTTTGTCTCT TTTTATATAT TTTTGTTTTG TTTATAGTTT GTTATATAAA	1140
AATAAACACA CAAACAAATA CTCCAAGCAT TTTTCTGTTC TAATACTCAA TGAAAATCAA	1200
AGAGCAAAC AGGAAGCTAG CCGCAGTTGT TCAAAACACA GTTTTGAGGT TGTAGATGAA	1260
ACTGACGAAG TCACTCAAAA CATGGTTTTG AGGTTGTAGA TGAAACTGAC GAAGCAACAg	1320
CCATACATAC GGTAAGGCGA CGCTGACGTG GTTTGAAGAG ATTTTCGAAG AGTATAAAAA	1380
CTAAAAAAGC AGACCATCTA AGCCTGCTTT ACTATTGATT CTTATATAAA TTTCCTGTGA	1440
ACAAGGAAAG GCATTCTGA TAACTTATTC TTCATCCATA CTCAAGACGC TGAGGAAGGC	1500
TTCTTGCGGA ACTTCAACTG ATCCGATGGA TTTTCATGCGT TTCTTACCAG CTTTTGTGTT	1560
TTCAAGGAGT TTACGCTTAC GAGAAACGTC ACCACCATAA CATTTAGCAA GTACGTTCTT	1620
ACGAAGGGCC TTGATATCAG TACGAGCGAC AATCTTGTGT CCAATAGCCG CTGGGATTGG	1680
AACTTCAAAT TGTGCGCAG GGATGATTTT CTGAGTTTA TCAACGATGA GTTCCCACG	1740
TTCGTAGGCA AAGTCTTGT GAACGATAAA GCTGAGGGCA TCCACCTTAT CTCCATTGAG	1800
AAGAATATCC ATTTTCACCA GCTTAGATGG GCGATATTCT GACAATTCGT AGTCAAAGCT	1860
TGCATAACCA CGTGTCGAAG ACTTAAGTTT ATCAAAGAAG TCAAAGACAA TTTCAGCAAG	1920
AGGAATTTGA TAGATAACAT TGACACGGT ATCATCAATA TAGTCCATAG TCACAAAGTC	1980
CCCACGCTTA CGCTGAGCTA GCTCCATTAC TGCTCCGACG AACTCCTGTG GTACCATGAT	2040
TTGCGCCTTG ACATAAGGCT CTTCATGGT CGCAATCTTA GTTGGGTCTG GAAACTCAGA	2100
TGGGTTAGAC ACATCCATAG ACTCACCCTG GGTCAAATTA ACTTTGTAAA TAACAGACGG	2160
AGCTGTCATG ATGAGGTCAA TATTGAACTC ACGCTCTAAA CGTTCCTGGA TAACATCCAT	2220

624						
ATGGAGAAGT	CCAAGAAATC	CACAACGGAA	ACCAAATCCA	AGTGCCTGAG	ATGTTTCTGG	2280
TTCAAACCTGA	AGACTAGCAT	CATTCAGTTG	CAATTTTTTCA	AGcGCTTCAC	GCAGGTCATT	2340
GTAATTGTTT	GATTCGATTG	GGTAGAGACC	CGCAAAGACC	ATAGGATTCA	TCTGCTTATA	2400
ACCATGTAAT	GGTTCTGCCG	CAGGATTGGT	TGCCAAGGTA	ACGGTATCAC	CCACACGAGT	2460
ATCCTGAACC	GTCTTGATAG	ACGCCGCAAT	GTAACCAACA	TCACCAGTCG	CAAGGAAATC	2520
ACGACCAACC	GCTTTTGGTG	TAAAAATACC	GACTTCGGCC	ACATCAAAGG	TCTTACTATT	2580
GCTCATGAGC	TGAATCTTAT	CACCAGGTTT	GACCACCTCG	TCCATGACAC	GCACTTGAGG	2640
GATAACCCCA	CGGTAAGCAT	CGTAAACAGA	GTCGAAAATC	AAGGCCTTAA	GTGGCGCCGT	2700
CACATCACCC	GTTGGTGCTG	GTACTTTTTTC	TACAATTTGC	TCGAGGATTT	CTTCAATCCC	2760
AATACCAGCC	TTGGCAGAAG	CCAAAATGTC	TTCCTGGCA	TCCAAACCAA	TCACATCTTC	2820
AATCTCTGTA	CGCACGCGCT	CCGGATCTGC	AGCCGGCAGG	TCAATTTTAT	TAATGATAGG	2880
CATGATTTC	AAATCATTAT	CCAAAGCCAG	ATAAACGTTG	GCAAGAGTTT	GAGCCTCAAT	2940
TCCTTGAGCC	GCATCGACCA	CCAAAATAGC	ACCCTCACAG	GCAGCTAGCG	AACGTGAAAC	3000
TTCATAGGTA	AAGTCAACGT	GCCCTGGTGT	GTCAATCAAG	TGGAAAATAT	AAGTTTCCCC	3060
ATCTTTTGCA	GTGTAATTCA	ACTCGATGGC	ATTCAACTTA	ATAGTAATTC	CACGTTCCCG	3120
CTCTAGCTCC	ATGCTATCCA	AAAGCTGGGC	CTGCATTTCA	CGACTTGAAA	CCGTCTCTGT	3180
TTTTTCCAAA	ATGCGGTCTG	CTAGAGTTGA	TTTTCCGTGG	TCAATATGGG	CGATAATAGA	3240
GAAGTTACGG	ATCTTCTCCT	GTCGTTTTTT	CAATCTTCT	AAGTTCATGA	TTCTCTTCCT	3300
TTCAGGGTAT	CTATTTATTA	TAAATTGTTT	TTGATATTTT	GACAAGACCA	TACCCTGCTA	3360
GGAGTACTAA	TCTTCAGCGA	CAAAGCCGTC	ATTTTCGATA	AAGTGGTGTT	CTGTCAATTC	3420
TTGGTCTGTA	AAGACAATCC	CGTGAAGGAC	ACCACCATAA	ACAGCTCCTC	CATCCATTC	3480
AATCTTGCCA	TCTTCTGTAG	TCCAAAGCTC	AGATGTACCG	CGTTCCTGCT	GTAACAAACC	3540
ATAGACCGGT	GTATGACCGA	AGACAATGGT	TTTTCCAGTA	TGATTTTCAG	CTCCGTGGAA	3600
TGGTTTTCTA	AGCCATACTT	TTTTATAATC	TGTTGTTTCA	TGCCAGTCGT	CCAAGGTCAA	3660
ATCAATACCT	GCGTGAACAA	AGATATACTT	GTCTGTCTCT	ACTACAAATG	GCATTTGACG	3720
AATGAATTCG	ACCAAGTCTG	CCGCTTCAGC	GgCAACCCGC	TTGGCATCTT	CTACTCCATC	3780
AACTGGTGCA	TCCAAGGGAC	GACCTAGGAT	AGAGTTAATG	GTTGTATCTC	CACCATTGCG	3840
ACTATAATGG	TCATAACTTT	CTTCTGGGTC	ATCTAGCCAA	GTCAAAAACA	TATACTCGTG	3900
GTTTCCGGAC	AAACAGATAG	CCCCTTGATT	GTCCACCAAG	TCCTTGACCA	TTTCAAGAAC	3960
ACGGTGACTA	TCCTCACCTC	TGTCAATCAA	ATCACCTAGA	AAGAGCAACT	GGGGCTGACC	4020

625

ATCCCAGGTT	TTGAGAAGGT	CTTCCAGCAT	CCCAGCTTTT	CCGTGAACAT	CTCCAATTAC	4080
ATAATAATCT	GTCATCTTAT	TTCTCCCTGT	TTCTCAACAA	TTCTCTTGCT	TGCGTCAGGG	4140
CTGCTTCTGT	CACATCATCA	CCTGCCAACA	TCTTGGCAAC	TTCTCTCCACT	CGCTCTTCGA	4200
CCGTCAAGAG	ACGAACAGTC	GAAACCGTTG	AATGGTCATT	ACTAATCTTC	TCAATAAAGA	4260
ATTGATAATC	TGCAATCGCA	ATTACTTGTC	GCAAATGGGA	GATAGCCAAA	ACCTGACCAT	4320
GCTGACCAAT	TTTATGAATT	TTCTGAGCAA	TAGCTTGAGC	AACACGACCT	GAAACTCCCG	4380
TATCCACCTC	ATCAAAGACA	ATGCTAGTCT	TGCCTTCTTT	ACGTGAAAAG	GCAGACTTAA	4440
TGGCTAACAT	GAGACGAGAT	AATTCCTCTC	CAGAAGCAAC	CTTAACCAAG	GGTTTAAAGT	4500
CTTCTCCAGG	GTTGGTTGAA	ATATAAAACT	CAACCATTTT	ATTTCCCTCA	CGACTGAATT	4560
TTCCCTTACT	AAAACGAACC	TGAACTGGG	CTTTTTCAT	ATAAGATCT	TGCAGTTCTT	4620
GTTTAATCTC	AGCTTCGAGT	TGCTGAGCCA	AATTATGACG	AGCAGAAGCA	AGTTGACCTG	4680
CCAAATTGAC	AAGATTGACT	TCCAACCTCT	TAAGCTCTGC	TTCCATGTCC	TCAGACGAAA	4740
GATTATTGCC	TGTCAAGAGA	TTGTATTCTT	CCGTAATCTT	GGCAAAATAA	AGCAAAACAT	4800
CATCAACAGT	CCCACCATAC	TTACGAGTAA	TAGTATGAAG	GAGGTCCAAA	CGATTCTCAA	4860
CCTGCATCAG	GCGATTGCCA	TCAAAATCAA	GGTCCTCAAT	GATAGCTTCC	AAACGTTTGC	4920
TAATGTCTTC	TAAACATAG	TAGGTCTCAG	ACAGATAGCT	TGAAATTTC	CGGTATTCAG	4980
GATCATACTC	TTGACACTT	TCCATGTCAT	TCATAGCTGA	ACGAACATTG	GCCAGACTTG	5040
AAAAATCTTC	ATTGTCCAAC	ATACTGTAGG	CATTGGTCAG	TGTATCCGCA	ATATTTTGT	5100
GGTTGAGGAG	TTTATCTCGC	TCTTGATTGA	GAGCCAAGTC	TTCTCCAGCC	TGCAAGTTTG	5160
CTGCCTCAAT	CTCTGCCATT	TGAAATTCCA	ACATTTCGAT	ACGTGCCTTG	TGTTCTGT	5220
GGTTTTCTCT	GACTTCCAGA	ACCTGCTTGC	GCATTTTCCG	ATAGGCATCA	AAACTCGTTT	5280
GATAGGTTTC	TTTCAAGTCC	CAAAAAGCGG	CATCACCAAA	TTCATCCAAC	ATCTGGATAT	5340
GCAGTTGGGG	ACGCATTAAC	TCCTCATGGT	CATGCTGACC	ATGAATATCT	ACAAGATGTT	5400
GCCCAATAGC	TCGCAAAACA	GACAGATTAA	CCATCTGACC	ATTTACACGG	CTGATACTAC	5460
GACCATTTTG	CAAGATTTCC	CGACGGATGA	TAATTTTATC	ACCTAATTCT	AAACCTTGCT	5520
CATCAAAAAT	TTCTGTAAA	AGACGACTAT	TCTCAACTGA	GAAAAGCCCC	TCAATCTCTG	5580
CTTTTGGTGC	ACCATGACGA	ATAACATCTG	TCGTGCGACG	AGCTCCCAAC	ATCATATTCA	5640
TGGCATCAAT	GATAATCGAC	TTCCCTGCAC	CCGTTTCACC	AGTCAGGACA	GTCATCCCCT	5700
TTTCAAAATT	GAGGGAAATA	GCCTCAATAA	TGGCAAAGTT	TTTTATCGAA	ATTCAAGTA	5760

626						
ACATATAGAC	CTACCAATTT	TTTACTTGTT	CAAAGATTTC	CTCTGCTAGA	CTTCCACTTC	5820
TGGCAATGAC	TAAAATCGAG	CTATCATCAG	TCAAACAGCT	AAAAATCTTG	TCTGCAAAAG	5880
TCTCGATTAA	CTGAGCTTTT	ACAAAAGCCG	TATTTCTCTG	AATAACTTGG	AGATTGATCA	5940
TCTTATCCAT	CAATTCAGCC	GATTCGATAT	TGTCTTCAGC	CAGTTGCAGA	CTTTTACGA	6000
TTGATTTTGG	CAATTCGTAG	ACATAGGTGT	TGTCTCTCAA	AGGAATTTTG	ACAATACCTA	6060
ACTCTTTGAT	ATCTCGGGAT	ACCGTCGCCT	GAGTGGCAGT	GATACCTGCT	TCTTTCAAAT	6120
GTTCACAAT	TTCTTCTTGC	GTGCCGATTT	GATAATCTGT	CACCAATCTT	CTAATTTTTT	6180
CAAGTCTCTC	TTTTTTATTC	ATTTTAAAT	TGACTATGCG	CCCTCTCTAC	TGCTTCTTTA	6240
ATCTCAGCAA	GAATCTGATT	GCTTGCTGAC	TTTTCTTTTT	TCAAATACGC	TAAAAATTCA	6300
ATATTTCCAT	GTCCACCTTG	GATGGGAGAA	AAGTCCAAGC	CAAGGACTGA	AAAACCTACC	6360
TCTACTGCCA	TAGCTGTTAC	AGATTCAAGG	ACATTCTGAT	GAACCTTAGC	ATCTCGAATA	6420
ATTCCATTTT	TCCCAATCTG	CTCACGTCCT	GCCTCAAAC	GAGGTTTGAC	AAGTGCTACC	6480
ACCTGACCTT	GATCAGCCAA	GACACGGTGC	AAGGCTGGCA	AAATCAGACT	AAGGGAAATG	6540
AAACTCACAT	CAATACTGGC	AAAGCTCGGC	TCCTGCTCGA	AATCAGTCTT	TTCAGCATAG	6600
CGGAAATTGA	ACTGCTCCAT	GCTGACAACT	CGTGGGTCTT	GGCGTAATTT	CCAAGCCAAC	6660
TGATTGGTAC	CAACATCGAC	TGCAAAGACC	AACTTGGCAC	TATTCTGTAG	CATGACATCG	6720
GTAAACCTC	CAGTAGAGGC	CCCGATATCA	ATCGTAGTCG	CGCCATCCAC	CGACAAATCA	6780
AAGACCTGCA	AGGCCTTTTC	CAGTTTCAAA	CCACCAGGC	TGACATACTT	GAGTTTCTCC	6840
CCCTTGAGTT	TTAATTCGGT	GTCATCTGGA	ATTTTCTCTC	CTGGCTTGTC	AAACCGTTCT	6900
CCATTAAAGGA	CTGCTACGAC	TAGGCCAGCC	ATCACACCTC	GCTTGGCCTG	CTCTCTCGTT	6960
TCAAACAACC	CCTGTTTATA	AGCTAGTACA	TCCACTCTTT	CCTTAGCCAT	TGATTCTCAA	7020
ACTTTCTACT	ACACTTACAA	TCGATTCTGT	TTCAAAGGGA	AGCTGCTGGG	CAATTTCTTC	7080
TAATTTTTC	TTAGCTTGAT	CCAGGGTTTG	GTTACAAAAG	GCAATGGACT	CTTCCAAGCC	7140
CAACAGGGCA	GGATAGGTTG	ATTTTCTGTC	CTGCAGATCC	TTTTGAGGTG	TCTTGCCGAT	7200
TTCTCAAAA	CTAGCTGTCA	CATCCAGTAC	ATCATCTCTG	ACTTGAAAAG	CAAGTCCAAT	7260
CAATTACCCC	ACAGTTTTC	GCTTCACCTG	CATTCAGGT	GACAATTCAG	CTATAATAGC	7320
TGCCGCTTGG	AAGGGATAGG	CTAGTAACTT	CCCAGTCTTA	TTGGCATGAA	TAGTCTGAAG	7380
TTCTTCCAAA	GACAAGTGCT	GGTGTTCGCC	CTCCATATCC	AAAACCTGCC	CTGCTACCAT	7440
ACCCAGACTA	CCTGAAGCAA	GGGATAAGTT	GGCAATCAAG	TCCACCTTAA	TCTGACTTGG	7500
CAAATCTGCC	TGCGCAATCA	AGGCATATGA	GTCTAAGAAT	AAGGCATCTC	CAGCCAAAAT	7560

627

GGCCATAGCT TCACCGAATT TCTTGTGATT GGTAAACCGC CCTCTTCGAT AATCGTCATC	7620
ATCCATAGCA GGAAGGTCAT CGTGAATCAA GCTCCCTGTA TGAATCATCT CTAAGGCAGT	7680
AGCTACCTGC GCGTGAGCAG GTTTGATGGT AACCTGCAAG GCTTCCAGAA CTTCTAACAA	7740
GAGAAAAGGC CGAATACGCT TGCCACCAGC ATGAATAGAA TAGAGAACAG ACTCCCGTAA	7800
ACTAGAGGCA AACTGCTGGT CTCCATAAAA ATCTTCCAAA GCCGACTCGA CAAGAGCTAA	7860
TTTTTCTTGC TTTTTCATTC AAAATCACTT TCTGTCCGT CTTCTTGCAT GACCTTGACC	7920
AAGGTCTTTT CAGCCTTGTC CAGCGTAGCT TGGAGCTCTT TTGACAAGAC CATGCCCTTT	7980
TGAAAGGCAG TAATCGCATC TTCCAGAGCA ATTTCACCAT TTCCAAACT TTGGACAATG	8040
GTTTCCAGTT CTGCTAGATT TTCCTCAAAT TTCTTTTGT TTGACATCTT TAACCTCTAA	8100
TTCTACTTGA CCATCTCGCA TCAAAAGCGT TACTTGGTCT TTTTCTTCA AACTCTCAAC	8160
CGAATCTACA ACGGACTCTT CTTTTTTGAC AATAGCATAA CCACGCGCCA CGATTGCGCT	8220
AGTATCCAAC ATGAGCAAAG CTTCGAAAG TCGCTTGGCC TCAGCAACCT TGGCGTCATA	8280
AACTAACGCC ATTTGGCTAC CTAAGAGCTT GTCCAACGT CCTAAACGGT CTTGATAGCG	8340
TTGGATTTTG GTAACAGGTG ATAATTGTAC TAATTGATGA GTTCTTGCTT GAACTAATTG	8400
TTTGTTATCA GAAATCCGAG TTCGCAAACT TTGTTTCAA CGCAGTTGCA GTTGGTCCAA	8460
GCGTTGCAAA TAACCGTCAT ACAAGCGCTC AGGTTGTCTA AAGATAACAG ACTGACTGCA	8520
TTTTTTCAA GCCTCTTGTT TCTTAGATAG AACATTTCGG ACTGCCGTTA CCATCCGTTT	8580
TTCCTGATTT TGCAAATGAG CTAATACATC CAACTTGGTC ACAGGTGTTG CCAGTTCAGC	8640
CGCCGCTGTT GCGTTCGAG CGCGTCGATC TGCCACAAAA TCTGCCAAGG TCACATCCGT	8700
CTCATGCCCC AACTAGAGA TAACTGGCAA ACGAGATTCA AAAATAGCTC GTACCACAAT	8760
TTCTTCGTTA AAGGCCCAGA GATCCTCAAT AGAACCACCT CCACGACCAA TAATGAGCAA	8820
ATCCAAATCG TCCCGTTGAT TAGCACGCGC AATATTCTA GCAATTTCCT CCGCAGCCCC	8880
TTCACTTGA ACCTTGGTCG GATAAAGAAG GATGTCAACA CCTGGGAATC GCCTGCTGAC	8940
GGTCGTGATA ATATCTCGAA TAACGGCTCC ACTACGGCTG GTTACTACAC CAATTCTCTT	9000
AGAAAATTGG GGCAGAGCTT GCTTGAAGCG TTCTTGAAAC AGGCCTTCTT CTGTCAATTT	9060
TTTCTTAAGT TGTTCAAAC GAATCGCAAG CGCCCCAACC CCATCAGGCT CAGCTTTTTC	9120
AATGATGATG GAGTAGCTAC CACTTGGTTC ATAGACCTGT ACACGCCCAA TCACATTGAT	9180
CTTCATTCCT TCTTCCAGGT CAAACCCTAA TTTCTGATAA ATCCAGACC AGATGGTCGC	9240
TTGAATAACT GCATGGTCAT CCTTTAGGGA GAAATATTGG TGAGTAGGTC GTTTACGAAA	9300

628

GTTGGAAACT TGACCAGTTA AATAGACCCG TTCCAAGTAT GGGTCTTTAT CGAATTTTCAT	9360
TTTCAGATAC TTGGTCAAAG TTGTTACCGA TAAATACTTT TCCATCTCCA CCTACTATTC	9420
ATTTACTTGC TCTTTCATGG GTATTATTAT ACCAAAAATA TGCCTAAAAA TCTCCATTTA	9480
TGTACCATTA TGAGGGAAAA ATAGAAAAAG GAGGCAAGGC CTCCACATGT GATTATTGTC	9540
TGTTTCGAGC TTCTTCCAAA ATCTTTGCAA TCTTGGTCGT CAACAGGTCG ATAGCCACGG	9600
TATTGCTAAC CCCTTCAGGA ATGACGATAT CAGCATAACG CTTAGTTGAC TCGATAAACT	9660
GGTGGTACAT TGGTTTGACC ACACCTAAGT ACTGGTTAAT AACGCTATCA AGGCTACGGC	9720
CACGCTCCTC CATATCACGC TTGATACGAC GAATAATGCG CACATCGTCA TCCGTATCCA	9780
CAAAAATCTT GATATCCATC AAATCGCGCA GACGCTTGTC CTCCAAGACC AAAATACCTT	9840
CAACGATAAA GACATCTTGA GGTTCCTGAC GATAGGTCTT GCTACTCCGT GTATGCTCTG	9900
TATAGTCGTA GGTCGGGATG TCCACCGGAC GCCCTGCCAA CAATTCCTTA ATCTGCTCGA	9960
TCATCAAGTC TGTATCAAAG GCAAAAGGAT GGTTCATAGTT GGTTTTGACG G	10011

## (2) INFORMATION FOR SEQ ID NO: 77:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5365 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

CGTGTGGTCT TAAAAATAGA AGACAAAGAA CAAACTGTTG GAGGCTTTGT CCTTGCAGGC	60
TCAGCCCAAG AAAAAACCAA AACAGCTCAA GTTGTGGCTA CTGGACAAGG TGTTCGTACC	120
TTGAACGGTG ACTTGGTTGC TCCAAGTGTT AAAACTGGAG ATCGTGTCTT AGTTGAAGCC	180
CACGCAGGTC TTGATGTCAA AGATGGCGAT GAAAAGTACA TCATCGTAGG CGAcTAACAT	240
TTTGGAATC ATTGAGGAAT AGAAGGAGAA AGTAAGTATG TCAAAAGAAA TTAAATTTTC	300
ATCAGATGCC CGTTCAGCCA TGGTTCGTGG TGTCGATATC CTTGCAGACA CTGTTAAAGT	360
AACCTTGGA CCAAAGGTC GCAATGTCGT TCTTGAAAAG TCATTGCGTT CACCCTTGAT	420
TACCAATGAC GGTGTGACCA TTGCCAAAGA AATCGAATTG GAAGACCATT TTGAAAATAT	480
GGGTGCTAAG TTAGTATCAG AAGTAGCTTC TAAACCAAT GATATCGCAG GTGACGGAAC	540
TACGACTGCA ACAGTCTTGA CCCAAGCTAT CGTCCGTGAA GGAATCAAAA ACGTCACAGC	600
AGGTGCAAAT CCAATCGGTA TTCGTCTGG GATTGAAACA GCAGTTGCCG CAGCAGTTGA	660
AGCTTTGAAA AACAACGCCA TCCCTGTTGC CAATAAGAA GCTATCGCTC AAGTTGCAGC	720

629

CGTATCTTCT	CGTTCTGAAA	AAGTTGGTGA	GTACATCTCT	GAAGCAATGG	AAAAAGTTGG	780
CAAAGACGGT	GTCAATACCA	TCGAAGAGTC	ACGTGGTATG	GAAACAGAGC	TTGAAGTCGT	840
AGAAGGAATG	CAGTTTGACC	GTGGTTACCT	TTCACAGTAC	ATGGTGACAG	ATAGCGAAAA	900
AATGGTGGCT	GACCTTGAAA	ATCCGTACAT	TTTGATTACA	GACAAGAAAA	TTTCCAATAT	960
CCAAGAAATC	TTGCCACTTT	TGGAAAGCAT	TCTCCAAAGC	AATCGTCCAC	TCTTGATTAT	1020
TGCGGATGAT	GTGGATGGCG	AGGCTCTTCC	AACTCTTGTT	TTGAACAAGA	TTCGTGGAAC	1080
CTTCAACGTA	GTAGCAGTCA	AGGCACCTGG	TTTTGGTGAC	CGTCGCAAAG	CCATGCTTGA	1140
AGATATCGCC	ATCTTAACAG	GCGGAACAGT	TATCACAGAA	GACCTTGGTC	TTGAGTTGAA	1200
AGATGCGACA	ATTGAAGCTC	TTGGTCAAGC	AGCGAGAGTG	ACCGTGACAC	AAGATAGCAC	1260
GGTTATTGTA	GAAGGTGCAG	GAAATCCTGA	AGCGATTCTT	CACCGTGTGT	CGGTTATCAA	1320
GTCTCAAATC	GAAACTACAA	CTTCTGAATT	TGACCGTGAA	AAATTGCAAG	AACGCTTGGC	1380
CAAAATTGTCA	GGTGGTGTAG	CGGTTATTAA	GGTTGGAGCC	GCAACTGAAA	CTGAGTTGAA	1440
AGAAATGAAA	CTCCGCATTG	AAGATGCCCT	CAACGCTACT	CGTGCAGCTG	TTGAAGAAGG	1500
TATTGTTGCA	GGTGGTGGAA	CAGCTCTTGC	CAATGTGATT	CCAGCTGTTG	CTACCTTGGA	1560
ATTGACAGGA	GATGAAGCAA	CAGGACGTAA	TATTGTTCTC	CGTGCTTTGG	AAGAACCCGT	1620
TCGTCAAATT	GCTCACAAATG	CAGGATTGTA	AGGATCTATC	GTATCGATC	GTTTGAAAAA	1680
TGCTGAGCTT	GGTATAGGAT	TTAACGCAGC	AACTGGCGAG	TGGGTAAACA	TGATTGATCA	1740
AGGTATCATT	GATCCAGTTA	AAGTGAGTCG	TTCAGCCCTA	CAAAATGCAG	CATCTGTAGC	1800
CAGCTTGATT	TTGACAACAG	AAGCAGTCGT	AGCCAATAAA	CCAGAACCAG	TAGCCCCAGC	1860
TCCAGCAATG	GATCCAAGCA	TGATGGGCGG	GATGATGTAA	GCTTTCCTATA	GAAAACAACT	1920
TATAAAAAAC	ACAAAAGGAG	GGAATGACTA	ACCCTTCTTT	TTATAGGCTC	TTTGTCAACT	1980
GTAGTGGGTT	GAAGTCAGCT	AAGCTCGAGA	AAGGACAAAT	TTCGTCCTTT	CTTTTTTGAT	2040
GTTCAAAGCG	ATAAAAATCC	GTTTTTTGAA	GTTTTCAAAG	TTTCGAAAAC	CAAAGGCATT	2100
GCGCTTGATA	AGTTTGATGA	GATTATTGGT	CGCTTCCGGT	TTGGCGTTAG	AATAGTGTAG	2160
TTGAAGGGCG	TTGATAATCT	TTTCTTTATC	TTTGAGGAAG	GTTTTAAAGA	CAGTCTGAAA	2220
AATAGGATGA	ACTTGCTTAA	GATTGTCCTC	AATAAGTCCG	AAAAATTTCT	CCGGTTCCTT	2280
ATTCTGAAAG	TGAAACAGCA	AGAGTTGATA	GAGCTGATAG	TGATGTTTCA	AGTCTTGTA	2340
ATAGCTCAA	AGCTTGCTTA	AAATCTCTTT	ATTGGTTAAA	TGCATACGAA	AAGTAGGACG	2400
ATAAAATCGC	TTATCACTCA	GTTTACGGCT	ATCCTGTTGT	ATGAGCTTCC	AGTAGCGCTT	2460

630					
GATAGCCTTG	TATTCATGGG	ATTTTCGATC	CAATTGGTTC	ATAATTTGAA	CACGCACACG 2520
ACTCATAGCA	CGGCTAAGAT	GTGTACAAAT	GTGAAAGCGA	TCCAACACGA	TTTTCAGCATT 2580
CGGGAGTGAA	ACAGTCTGGG	AGACTGTTC	AGCCTGAGCC	TAGAAATTTG	AAAGCGAAGC 2640
TGTTTAGCCA	AGTCATAGTA	AGGACTAAAC	ATATCCATCG	TAATGATTTT	CACTTGACAA 2700
CGAACGGCTC	TATCGTAGCG	AAGAAAGTGA	TTTCGGATGA	CAGCTTGTGT	TCTGCCTTCA 2760
AGAACAGTGA	TAATATTAAAG	ATTATCAAAA	TCTTGCGCAA	TGAAACTCAT	CTTTCCTTCA 2820
GTGAAGGCAT	ACTCATCCCA	AGACATAATC	TTTGGAAGCC	GAGAAAAATC	ATGCTCAAAG 2880
TGAAAGTCAT	TGAGCTTGCG	AATGACAGTT	GAAGTTGAAA	TGGCCAGCTG	ATGGGCAATA 2940
TCAGTCATAG	AAATTTTTC	AATTAACTTT	TGAGCAATCT	TTTGGTTGAT	GATACGAGGG 3000
ATTTGGTGAT	TTTCTTTAC	CAGGGGAGTC	TCAGCAACCA	TCATTTTGA	ACAGTGATAG 3060
CACTTGAAAC	GACGCTTCT	AAGGAGAATT	CTAGAAGGCA	TACCAGTCGT	TTCAAGATAA 3120
GGAATTTTAG	AAGGTTTTTG	AAAGTCATAT	TTCTTCAATT	GGTTTCCGCA	CTCAGGGCAA 3180
GATGGGGCGT	CGTAGTCCAG	TTTGGCGATG	ATTTCTTGT	GTGTATCCTT	ATTGATGATG 3240
TCTAAAATCT	GGATATTAGG	GTCTTTAATA	TCGAGCAGTT	TTGTGATAAA	ATGTAATTGT 3300
TCCATATGAA	TCTTTCTAAT	GAGTTGTTTT	GTGCTTTTC	ATTATAGGTC	ATATGGGACT 3360
TTTTTTCTAC	AACAAAATAG	GCTCCATAAT	ATCTATAAGG	GATTTACCCA	CTACAAATAT 3420
TATAGAGCCG	AAAATTCACA	TCTAATATAT	GCAGACTACT	TTGAAATGAA	ATTAAAAAAA 3480
TTATTAAAGG	ATGACACAAA	AGTTTTTGAA	AAATCTACAT	TCAAATTTGT	AGAAGGATAT 3540
AAAATATACC	TGACAGAATC	TAAAGAATCT	GGAATTAAAC	AAATGGACAA	TGTCATAAAA 3600
TATTTTGAGT	TTATTGAATC	TAAAAGTATT	GCTTTATATT	TTCAAAAACG	ATTAAATGAG 3660
CTGATAGATT	AAATAGCATT	TTCTCTGTTG	AGATATTGTT	TTTAAAATAT	TGTACTAAAT 3720
GATTGATGCT	ATGTGGAAAT	ACAAAAAAAT	GTTTTTGATA	CGAAGTTGAC	CTGTATTTTT 3780
TATACTAATC	ATTTTCGTAT	TTTTTGATAT	AAACGATATA	AGTTTGTTGT	AAACTTACAA 3840
GGAATAAAGA	CATTAAAAAA	TAACAGTATA	TCTATTGTGT	TTATATATTT	TACGAATTCT 3900
GCATAAATCT	CTTCTAGTA	ATGTGTTGTA	ACTCTGCTAT	AATAGATTTA	TTCTTTTTTG 3960
TGTTTACACA	ATTTATTTTA	TAGTACAAA	AAAGGTCAGG	ATTTTGTTCC	TGACCTTTGA 4020
CAACTTTACC	GATTCTTTAG	TTCTACATAG	CGCTTGTAAC	AAATGTTTAC	ATAGGCTTCT 4080
GAGAAAGGAC	CACGTCCATT	GTTAATCCAA	TCAACAAGAA	TTTTGACATG	TTCTTTTAAA 4140
ATATAGTCCA	AGTCATCAGA	ATAATTCATT	TTGCGTTTGT	GACGCTCGTA	CTCTTCAACG 4200
TCCAAGAGAC	GTTTTTCCCC	ATCTGTAAAA	ATTTTAACAT	CCAAATCGTA	ATCAATATAC 4260

631

TTCAGTGCTT CTTCATCCAG ATAGTAGGGG CTAGCCATAT TGCAATAGTA AGAAGTTCCA	4320
TTATCACGAA TCATGGCAAT GATATTAAAC CAATATTTCT TGTGAAAGTA AACAATAGCC	4380
GGTTCTCGAG TGACCCAACG ACGACCATCA CTTTCGGTAA CAAGTGTATG ATCGTTGACA	4440
CCAATAATGG CGTTTCTGT TGTTTTGTAGT ACCATGGTGT CCCGCCAAGT TCGGTGGAGA	4500
CTCCCATCAT GCTTATAACT TTGAATTGTA ATAAAGTCGC CTTCTTTTGG AAGCTTCATA	4560
ACTAACCAAC TTTCTACAAT TTATAAGTTT ATCATTTACT ATTGTACCAT AAAATTACCC	4620
AAAAATCTGTG AATTTCACTT GGAAATATTA AAGATATTCT CTAAGAGCGC TTGCTATATC	4680
CGAAAAATCG TAGCCCTTTC GTGCTAAAAC TTGAGTTAAA CGCTGCTTCA GTTCGTATCC	4740
TTCATACTTT CGGGCATACT TAGTATATTG CTTATCAAGT TCCTTGAAGA TGAGTTCCTG	4800
AGTCGTTTCT TCATCAACTT GACTATCCAA TTCGTCAAAG GCAATTTTAG CATCAAATA	4860
AGAGAAGCCC TTGTTAGTCA AGTTCGGAT AATCTTATCT TGAGGGCAC GAGCTGGAAG	4920
TTTTCCCTCA TATTTTTTCA ATAGTTTATT GGCTACACGT TGAGCAACTT CCGAAAAATC	4980
AAAATCATTC AAGATTCTT CTATAGTAGA TTTTGAAATT CCTTTTGTG CTAATTTCTG	5040
AGTCAGTACA TAAGGTCCTT TGTCTCCTGA AAGTTGATTG GCATTGATGA TAGCATAAGC	5100
GTACTGGCTA TCATTAATCC ACTTCTCTTC TTAAAGATTA GCAATGACTT GAGAAACGAT	5160
GTTTTCATTA ATATCATATT TTTTCAGATA TTCTCTGACC TCTTTTTCAG TACGTGCTTT	5220
AAAGGATAAG TGGTAGAGGG CCAGATTCTT ACCATAAGAA AATTGAGCAA AGTCTTGAAT	5280
CTCTTTCAAT TCCTCTTCGC TTATCACCTT ATCTCTCGAT AACATAAAAC GAACAATTGT	5340
GTCTTCGGTG ATATAGCATT TGTCG	5365

(2) INFORMATION FOR SEQ ID NO: 78:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3636 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

TTTCCAGAAA GAAGTTGAGT AAAGTCTTTA TCAAAGAGAA TGACTTCCGT ATTGGAAGTG	60
ACATTAGGTT TTATTTCTAC TTTACTAGCG TCCGCCCTAG CATTTTCTAA ATCTTTAATC	120
TCTTCTGTTG CCCTATTAT AGCCAGCTGA ATAAGTCTT GAGGATTTTC ACTCAGTCCA	180
TGAAGCTTAT CGTCCACCGA ACTATAAAGA CTCGAATGCA TGACTTGTA AATAATCAGA	240

632					
GTCATTGTAG	AAAAAATCAG	GGTGAAGACA	CCGAAGTTGC	GGATAAAATA	ACTAAAGTCA 300
TCCGCATACC	ATGTTTTTTT	AAGTTTACTG	AACATCTTTT	AAAAGATACC	CAACACTACG 360
CAAAGTTTGC	AAATTCTCTG	CAAAAGTGGT	TCCCTTTAAT	TTCTTACGGA	CTTTTGAAAC 420
ATAGACTTCG	ACAACCGAAA	TCGTTGTATC	ACTATCAAAT	CCCCATAGAC	GGTCAAAAAT 480
CTGCGTCTTA	GGCAAAATCA	CATTTTGATT	TTGAAGGAAA	TAAACTAGTA	AATCGAACTC 540
TTTCCCCAGC	AATTCGACAG	GAGTATCTTC	AACTTTAACG	GTATTGGTTG	ATAAATTAAC 600
CACGATATTC	CCATAAGTCA	AGGTGTTTTC	ATTAAACTTC	CCTGAACGTT	TGAGAAGGGC 660
CTGAATCCGC	ATTTTAAGTT	CTTCTAGGTA	GAAAGGTTTG	GTCAGATAAT	CATCCGCTCC 720
CAGTTCAAAT	CCATGTCCCT	TGTCATCCAA	ACTTTCCTTG	GCAGTCATAA	TCAGAACTGG 780
TGTCGTAATT	CCCTTTTCAC	GCAATTCCTT	TAAGACTTGG	AAACCATTTT	TTTCTGGCAA 840
CATCAAATCC	AGCAAAATCA	AGTCATAGAC	ACCACTCTCA	GCTTCGTAGA	GACCTTCTTC 900
TCCATCAAAT	ACCTGCATAA	CATCCGCAAA	ATCGTCTAAA	AAGTCAAATA	CTGAATTTGA 960
CAGACCTAGG	TCATCCTCAA	CCAATAAGAT	TTTTATCATG	AGAAACTCCT	CCTTATTAAA 1020
ACTATTATAC	CAAATTTGCC	TTAAAAAATA	CTCAACTCTC	TGCATTTTAC	ATGAGATAGC 1080
TGAGTTTCT	TTTTATTTTA	GGCTTATTTA	TGCATTTCCG	TATTGAAGAA	CAACTGCTTC 1140
GACTGCAGCT	TTTTCACGGC	TAATCAAGTC	AACACGCGCT	GCAATTTCTT	TGATTCCCAT 1200
ACCGATGTTA	CGGCTAAGAG	CAAGGTCAGA	AAGTTGCGGT	TCAAAGAACT	CCTTGTATTC 1260
CGCCAAGCGT	TGCTGAGTCT	TAAATACATG	AGCAGGAAGG	ATAACAAAGC	TATCAAAGCT 1320
CATATCTCCT	CCAAGGGCTG	CCTTAATCCA	AGCCCAGTTT	TCACGCGCCC	AAGACCAAGC 1380
TGTTTTCTGA	GTTGCTTGAT	GAGCTAGGAA	TTGGTAATAC	CAAGCAGACA	AGTCCTGTGG 1440
TTTGACCACA	AATTTGTCCT	TCCAAGAAGT	AATCAGGTTT	TGGATATTAT	CCGCATCTGT 1500
ACTGTATGCA	AGAGCTGCTG	CCAAGTGCGC	TTTAAAGACA	GCATCTGTTG	CGTGAGTATA 1560
AGTATCAAGA	TAAAGTGCTA	ACAAGTCTTT	AGTCTCATGA	TGTTTCATCT	CATTAATCAG 1620
AACTTGTGAG	CGAATAGCTG	CTGGGAGTCC	TGCAAGATTC	TCCTTGTGTG	TTGCGAAGAT 1680
TTGGCTAGCG	ACTTGACTAG	CTTCTGCATC	ATTTGAGCGA	ATCATCATCG	AAACAGCCAG 1740
CTGACGAACC	AATTCATCCT	CATCTGATTC	TCCGTCCTTA	GCTTCAAAAC	CAAGACGGTC 1800
ATAGTTATGA	CGAGCCAATT	TAGCAACCAG	TCCTTTGAAG	GCTGTTTCAG	CATCCGTTCC 1860
TTCATCAATA	AAGCGCTCAA	GGGCTGAAAT	CACTTGAGAA	ACAGCTGAAA	CCACCAGATA 1920
AGACTCTTCC	TTAGCAAGTT	TATCAAGAAC	TGGAAGCAAG	TCTGCATAAG	AAATGTGCCC 1980
TGCCTCAGCC	AACAAACGAC	GTTCTTGAAC	AATTTGCAGT	TTGCTTGTGT	TATCAAGTGT 2040

633

CTCTAGCTCA	GCAAGAACAG	CTGCTAACAA	GTCTCCTTGA	TAGTCGGTAA	TATAGTGGGC	2100
AGTATTTTCA	GTGTTGAGAC	GAAGAGCTCC	TTCATTTTCA	GCAAGAAGAG	CTGCGTAGCC	2160
AGGGATTTCG	ATACTTTCAG	TTTCGAGTGT	ATCAGGCAAG	CCTTTCAGT	TGCTATTGAG	2220
GGGCACCACC	CAGAGACGGT	TCTTGTCTTC	GTTCTCACCG	ATGAAGAATT	GTTTTTGTGA	2280
AATCTTCAAG	ACATCATTTT	CAACTTTAAC	AGTAAGAACT	GGGTAACCAG	GCTGTTCCAA	2340
CCAAGAATCC	ATGAAGGCTG	CGACATCACG	TCCTGACGCT	TGACCAAGGG	CATCCCAAAG	2400
GTCACTACCA	ATGGTGTTGC	TGTATTGGTG	TTTTTCAAAG	TAGGCGTGCA	AACCTTTAGC	2460
AAAATCAGCA	TCTCCTAGCC	AACGGCGAAG	CATGTGCATG	AGACGGCTTC	CTTTGGCATA	2520
GACGATAGCG	CCGTCAAAGA	GTGTATTGAT	TTCATCTGGA	TGTTTAACTT	CGACGTGGAC	2580
AGACTGAACG	CCATCAGTAG	CGTCACGTTC	AAGAGCAAGA	GGTACTCCAC	CTGTTTGGAA	2640
ATCTTCAAAG	ATATTCCAGC	TTGGTTCGAT	GGTATCCACA	CAGACGTATT	CCATCATATT	2700
AGCGAAACTT	TCATTGAGCC	AAAGGTCATC	CCACCATTTC	ATAGTCACGA	GGTTCCCAAA	2760
CCATTGGTGA	GCCAATTCAT	GGGCCACAAC	AAGGGCAACT	TGTTGACGGC	TAGCAAATGT	2820
AGAGTTCTCA	TCGACAACCA	AGTAACTTC	ACGGTAGGTC	ACAAGACCCC	AGTTTTCCAT	2880
AGCACCAGCT	GAGAAGTCAG	GAAGGGCGAT	GTGGAGAGAT	TGAGGAATTG	GGTACTTAAC	2940
TCCATAGTAA	TCTTCGTAAA	ACTCGATAGA	GCGAACAGCG	ATATCCAGTG	AGAAATCAAG	3000
ATTTGAAAGT	GGATGTGCTT	TGGTTGAGTA	GACACCTACC	AGGGTACCAT	TTTGTAGTTT	3060
AGCGGTCACC	CCTTGCAAAT	CACCAGCAAC	AAAGGCCAAC	AAGTAAGAAG	ACATGCGAGG	3120
TGTTGTCTCA	AACTTCCAGA	TACCTGTTTC	CTTACGGTTT	TCAACATCGA	TTTCTGGCAT	3180
GTTTGACAAG	GCCAATTCAC	CTTCTGCTTG	GTCAAAGCGA	AGAGAGAGGT	CAAAAGTTGC	3240
TTTGGCTTCA	GGCTCATCCA	CACATGGGAA	AGcTTCGCGC	GCAAAATGGC	TCTCGAACTG	3300
AGTAGACAAG	ACCTCCTTCT	TGACTCCATC	AACTGTATAA	TAAGAAGGGT	AAATCCCTGT	3360
CATGTTGTCT	GTAATTTTAC	CAGAAAAGGC	AAGAACCAAT	TCAACTTGAC	CAGCCTCAGC	3420
CAATTGCGATA	TGAAGGGCTT	CATTGTCATG	GTCAACTGTA	AATGGACGAG	CTTGACCTGC	3480
AACTTCTACA	GAGGTGATTT	CCAAATCTTT	TTGGTGGAGG	GAGATGCGGT	CACTCTGTGC	3540
TTGACCAGTG	ATGGTCACTT	TCCCAGAAAA	AGTCTTGGTC	TCACGACTCA	AATCTAAAAA	3600
TAAATCATAA	TGTTCAGGAA	CAAATTGCTT	AATGGG			3636

(2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5066 base pairs

634

(B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

ATAGCGTGTA ATAATCGATT TTAGAGGTAC CATAAGCCAC CTCCTACAAA TAGAAACCGA	60
TATAAATCAA TGCCTTCCAC CCTTAGACTT CCCTAGTTCC TGTCTCAAGC GAAACATTTTC	120
TTTGAAACAG GAATAAGTTA ACCAATTCAT ACCAATAGCT AGCAGAATAA AAAGAAACCA	180
AATGCCCCAT AACTTGATAT CTGTCACATT TCTCAAGACG GTATTGAAAA ACAGAACTGA	240
AACAACGTGC CAAGCAAGGC TAAAAAGAGA ATAGAAGGGG ATGTAAAACC AGTAAAAATA	300
ATAAAAAATT GGAAAAAACT TACTATTTCT GTTGGCCTTT TCAATCCAGT TATCAAAATA	360
AAAGTACGGT GCTAAAAGTA AGAATTTAAA CAAATGTTCC ATCACCGACA TCCCCCCTTC	420
TTTTGATAGC GTTTTCTATT ATTTTATTAT ATCAAAAAAA TCCGGAACGT TCATTCCAGA	480
TTCTACTTTT TTATTTGCGT TTTCTTGCGA TGAGATGAAT CGGTGTTCCC TCAAAAACAA	540
AGGCCTTGCG GATTTGATTT TCCAAGAAAC GCAGGTAAGA AAAGTGCATG AGTTCTTCTT	600
CATTGACAAA GATGACAAAG GTTGGTGGTT TGGTTGCCAC TTGGGTCGCA TAGAAAATCT	660
TGAGACGTTT TCCTTTGTCT GTCGGTGTG GGTGATGGC AATGGCATCC ATGATGACAT	720
CGTCAAGAC AGCTGATGGA ATACGTGTAT TTTGACTTTC GCTGATTTGC TTAATCATCT	780
CAGGAAGTTT GTGGAGACGT TGCTTGGTTA AAGCTGATAC AAAGATAATC GGTGCGTAAG	840
GCAGGTATTG GAACTGCTCA CGGATATCTT CTTCCCAGTT TTTCATAGTG TGGTTATCTT	900
TTTCAAGCGT ATCCCACTTG TTGACCACGA TAATCATCCC TTTACCAGCT TCATGGGCAA	960
ATCCTGCGAT ACGCTTGTCG TACTCACGAA TGCCTTCTTC CGCATTGATG ACCATCAAGA	1020
CCACATCTGA ACGGTCAATA GCACGCATGG CACGCATAAC AGAGTATTTT TCAGTATTTT	1080
CATAAACCTT ACCAGACTTA CGCATACCAG CCGTATCAAT CATGGTAAAC TCTTGACCAT	1140
CTGTATCTGT AAAGTGGGTA TCAATGGCAT CACGAGTTGT TCCAGCAACA GGAAGTACAA	1200
TAACACGGTC TTCTCCCAAG ATAGCATTGA TCAAGCTTGA TTTTCCAACG TTAGGACGAC	1260
CAATCAAGCT AACTTAATG ACATCTGGAT TTTCTTCCTC ATATTCATTT GGAAGATTTT	1320
CTACGATCGC ATCTAGCACA TCCCCTGTAC CGATTCCATG GACAGATGAG ATAGGCAATG	1380
GTTCACCCAA ACCGAGAGCA TAGAAATCAT ATATATCATT TCTCATCTCA GGGTTGTCCA	1440
CCTTGTGAC TGCAGAGATA ACTGGTTTGT GGGTCTTATA AAGCTTACGA GCTACGTATT	1500
CGTCTGCATC AGTAATTCCT TCCTTACCAG ACACGACAAA AACGATAACA TCTGCTTCTT	1560

635

CCATGGCAAT TTCTGCCTGG TGCTTGATTT GTTCCATGAA AGGAGCATCG ACATCATCAA	1620
TTCTCCTGT ATCAATCATG CTAAAAGAAC GATTGAGCCA CTCACCCGTT GCATAAATAC	1680
GGTCACGTGT CACTCCTTCG ACATCTTCTA CAATGGAGAT TCGCTCACCA GCGATCCGAT	1740
TAAATAGGGT TGATTTCCTA ACATTGGGAC GTCCTACAAT GGCAATAGTT GGTAGGGCCA	1800
TAATTTCTCA CTTTCTACAA TAATTTCTTC TGTTCAGAT TTTTCTAGT TGAGCTTGGT	1860
TCAGCTTGAC CAAACTGTTC TGCTAGGCGC TGAATCCAGC TTGTGGTCGC ACGCGCCCCA	1920
GCATAGTCAG CCTGAACACG GTCATAAGCT TGGATTGCCT CAGTTGACTG TTCTTGGTAT	1980
TCTTCTCAA AGACAACATT CTCTAGTGGC AGTCTCGGT TCATATCATG ATGTGTGATTT	2040
GGCACACCCA GTGCCATCCC AAAGACAGAA TAGGTGTAGT CAGGTAGGTT AAAGAGCTCT	2100
GCCACTTCTT CAGACTTGTA TCGAACCAAA CCGATAATCA CACCACCATA GCCCAAGCTT	2160
TCAGCTGCCA ACAAGGCGTT TTGTCCAGCA AGAGCTGCAT CGACCGAAT AATCAAGAGA	2220
CCTTCCACAC CTTGGGGTTG GAAGGTGTCG GTATGAAGTC GGGCTCCCTT TTCTGCTCGG	2280
TTCAAATCTC CGACAAAGAG AAGGAAAACA GCAGACTGGC GAATGGCTTC TTGAGGTACC	2340
AATTCATACA AGGCATCTTT CTTCTCTTGA CTTCGTACCA CAATCACAGA GTAGGATTGG	2400
AAATTTCTCC AAGATGATGC CATCTGGGCT GCTGTCAAAA TCTCATTTAA GTCTACTTGG	2460
GGAAATTTCTT GCTCTTTAAA CCTGCGCACT GAAGTATGAG CCTTCATCAA TTTAATGGTT	2520
TCTGTATCG ACGGTTTACT CCTTCTAAAC GAGTCTCCTC AGCCAAATAA CGGATGCGTT	2580
CCATGACCCG TCTGGCTTCC CAGGTTTCGT CATTTCCATG TTTCACTTTC GCAAAATGCT	2640
TCTCCAAATC TTCAAAGTTG AAGTTGGATG TGAAAAAGGT CGGTAAATTT TCCTGCATCC	2700
GATATTGGAG AATGACCTGC AGGATTTTCGT CACGCACCCA AACGGTTGAT TGCTCGGCGC	2760
CAATATCATC TAAAATCAGG ACCTCAGACA GCTTAATCTC ATCCACCAAG GTCTTAACAT	2820
TGCCATCACT GATAGCATTT TTGACATCAA TGACAAAGCT AGGATAGTGG AGGAGAGTTG	2880
ATGAAACACC ACGTTTTTCT GATAAATCAT GAGCTAAGGC CGCCACCATG AAACTTTTAC	2940
CCACACCAAA GTCTCCATAT AAGTAAAGAC CTTTTCGAAT AGCTGGATAT TGCTCCACGA	3000
AGGCTAGTAG CTTTTCAAAA ACTGGTAAGC GCCCAAATC ATCCAAGTCA ACTTGAGCCA	3060
AACTAGCTTT CTTGAGACTG GCTGGTAGAT TGATTAACCT GAGACGGTTC TTAATAGCCG	3120
CTTCTTTTTC AGCCGCGATT AGCTCAGGAG TTTCTTCATA TGAAACATCT GCATAACCAT	3180
GATTCCTTAA CAAAATCGGC TTGTAGCCTT TGGCAATATA ATCCGTATCC CCACGGAGAA	3240
ACTTGTCACG CTCGGTGATG TACTGATTAA ACTTGAGAT ACTGCGATTT AATTCCTTTG	3300

636

GAGTTAAGGA TTCTTGCTGG ATAAAGGCCG CAACATCAGG GTCCTTCATG ATTTTCTGGA	3360
CCAAATCTTG ATAATAAAAA CGGCTGGGT GACGTTTGAG TACGTCTCCG ACACCTTTCCA	3420
TCTAATCTCC TCCTTTTCT AATCGAGCTA ATAGTTCTTG CTTCTTACGT TCTAGTTCCA	3480
GACGAGTTTC CTCGCTGGT TCATTCTTAT ATTCAGGATT ACTCCATTTA GGAACATTGG	3540
TTTTTCTGG GGCAGTCTGA TTCTGTTTTT GTGTTTTTGC TTTCTGCCCT CGATCACGAA	3600
TTCGTAAAC GGCCTCTCT GCCGAATGAA TCTTTTGATA GGCATAGTCA TTGGCTACCT	3660
TCATGGCATA TTTCTCATTG ATATTTGCCG AATCCACCTT ATTAAAGGTC AATAAGAGAA	3720
TAATATTGAT GACTTCGTCC AGTAAGCCCA AGCCAGCCAT CTGTTGCAAG AGTTCTCTTT	3780
CTGTTTGGGT AATGGTTCCC TTGCGTGTTT GCTTGATTTC TGCTAAGAAC TGCAGGGCAG	3840
TTTTACTTTT AGCTTCTTTG ATAATGGTCG CTTCCTTAAG ACTAAAGTCA GAGGAACTG	3900
GTTTTTGAGC AATTTTTTCA CGCATGCGTT TGGTTGAAAT AACCTGGGAA ACAGCTGTTG	3960
ACTTGGCCAA TTGATAGGTT TCAAACCAAG TCCATTCTTT CTCCTCGGCA ATAGCAAAGA	4020
GGTTTAAGAC ATCGGACTGC TCATCCGCAA AACGAAGTCC ATCTCGAGCC ATCAGCTGGC	4080
GAAAATGTTT CAAGTCAAAA TCATTGGCCA CTTTCTTCTT GAGACCAAGG TCTTCTTGAC	4140
TGCCTAGTTC TGCCAATTCT GGAAAGACTT GATTGAGTGA GACAGGTATT TCTTCACCAT	4200
CAGCACTTTC AACTTTCAAA TCCTCCACAG CTACATCGCC AATCTTTTTC TCTAAGAGTC	4260
TGCGATAAAC AGGATGCCCC AAGAAGTCTT GACTAGATAG AGGAGCATGG AGGGCTAGCT	4320
GATAAACATC ACCCTTTTGA TAGAGGGTCA AGAGATTAAA AGCAGATAAG ATTTTCAATG	4380
ATTTTATCAG TCTATCCATC CCAAAGTTGA GATGGTTGAG AATGCTTGAA AAAAGATATT	4440
CCTTTCTACC ATTATCCCAA AAAGTGATTG TATAAAGATA AAGGCTCAGT GCCTCCTGAC	4500
CGATAATCGG GAGGTAGCAC TGTACCAGAG ATGAGGTATC TTGCGACACC CGATTATTCT	4560
TTAGATAAGA AAAACGGTCA ATTGGCTTCA TTTATCTTTC CTTTTTCTTT TTAGAGGACT	4620
GGGTGATTTG TTGGAGCAAG CTCTCTAACT CACTGACATC CTTAAACTA CGATAGACAC	4680
TAGCAAAACG TACATAGGTA ATCTCGTCCA ATTCAGCCAA CTCCTCCATG ACGAGTGAAC	4740
CAATGTCCTC ACTTTGAATT TCATTTTCAT TTCGACCACG GAGTTTCTGT TCGATACGAT	4800
TGACTACCAT GTTGATTTCA TCACTTGACA CAGGACGTTT CTGGGCTGAG CGGATAATCC	4860
CATTAAAGAT TTTATCTCTG GAGAATTGTT CCCGTGTGCC ATCTTTTTTA ACAACCACTA	4920
AGGTTCCTTC TTCTACTCGT TCGTAGGTTG TAAACGGTG TTGGCATTCG TCGCACTCAC	4980
GTCTTCTACG AATGGTGTTT CCTTCTTCTG CTTGGCGACT ATCGATAACA CTTGACTTGG	5040
TAGCCCCACA TTTTGGACAG GGTACC	5066

637

## (2) INFORMATION FOR SEQ ID NO: 80:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 9607 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

CACCTGGAAGT ATTTGAAACA GCTATGGAAA ACATCATGCC TGTACTTGAA GTACGTGCAC	60
GTCGTGTTGG TGGTTCTAAC TACCAAGTCC CAGTTGAAGT TCGTCCAGAA CGTCGTACAA	120
CACCTGGACT TCGTTGGTTG GTAACAATCG CTCGTCTTCG TGGTGAACAC ACAATGCAAG	180
ACCGTCTTGC AAAAGAAATC TTGGATGCTG CTAACAACAC TGGTGCAGCA GTTAAGAAAC	240
GTGAAGATAC TCACCGTATG GCTGAAGCTA ACCCTGCATT CGCACACTTC CGTTGGTAAG	300
ATAGGATGCG AAAGCGTTAA GAAAGTCCCA GAGAAAATAG GGAATCGAAG CAGGTTGCGG	360
TTGCAACCAA TGAGATTCAT CTTTTCTCC AGACTTTTAG CTTGAGCTCA ACTAAATCAT	420
GATGCTAGGA ACGGTAAGGA TGCAAGGTAA AAATAGGAAA CTGACGCAGT ATTCGACGAA	480
TACAAGGAGT TTTATCTTTT TCACGCAGCA TCCCGTTCCA GCTCACATCG GCTAACTAAC	540
TTTAGCCCGG GTTCAAATTA GCTAAATCGA TTAGTATTAG CTATAACTCA GCTTACCATC	600
TCGTAAGTTG AAACCAACAA TAGCATGAAA ACATTGAGAA CGGGTAGGTC CTGCCTATCC	660
GTTTTTATTA AAATCGTGTT ATAATAGAAT AGAAATCAAA AATAAATAGG AGAAACAAAC	720
CTCATGGCAC GCGAATTTTC ACTTGAAAAA ACTCGTAATA TCGGTATCAT GGCTCACGTC	780
GATGCCGGTA AAACAACAAC TACTGAGCGT ATTCTTTACT ACACTGGTAA AATCCACAAA	840
ATCGGTGAAA CTCACGAAGG TGCGTCACAA ATGGACTGGA TGGAGCAAGA GCAAGAACGT	900
GGTATCACGA TCACATCTGC TGCGACGACA GCTCAATGGA ACAACCACCG CGTAAACATC	960
ATCGACACAC CAGGACACGT GGACTTCACA ATCGAAGTAC AACGTTCTCT TCGTGTATTG	1020
GATGGTGCGG TTACCGTTCT TGA CTCACAA TCAGGTGTTG AGCCTCAAAC TGAAACAGTT	1080
TGGCGTCAAG CAACTGAGTA CGGAGTTCCA CGTATCGTAT TTGCCAACAA AATGGACAAA	1140
ATCGGTGCTG ACTTCCTTTA CTCTGTAAGC ACAC TTCACG ATCGTCTTCA AGCAAATGCA	1200
CACCCAATCC AATTGCCAAT CGGTTCTGAA GATGACTTCC GTGGTATCAT TGACTTGATC	1260
AAGATGAAAG CTGAAATCTA TACTAACGAC CTTGGTACGG ATATCCTTGA AGAAGACATC	1320
CCAGCTGAAT ACCTTGACCA AGCTCAAGAA TACCGTGAAA AATTGATTGA AGCAGTTGCT	1380

638						
GAAACTGACG	AAGAATTGAT	GATGAAATAC	CTCGAAGGTG	AAGAAATCAC	TAACGAAGAA	1440
TTGAAAGCTG	GTATCCGTAA	AGCGACTATC	AACGTTGAAT	TCTTCCCAGT	ATTGTGTGGT	1500
TCAGCCTTCA	AAAACAAAGG	TGTTCAATTG	ATGCTTGATG	CGGTTATCGA	CTACCTTCCA	1560
AGCCCACTTG	ACATCCCAGC	AATCAAAGGT	ATTAACCCAG	ATACAGACGC	TGAAGAAATT	1620
CGTCCAGCAT	CTGACGAAGA	GCCATTTGCA	GCTCTTGCCT	TCAAGATCAT	GA CTGACCCA	1680
TTCGTAGGTC	GTTTGACATT	CTTCCGTGTT	TACTCAGGTG	TTCTTCAATC	AGGTTCATAC	1740
GTATTGAATA	CTTCTAAAGG	TAAACGTGAA	CGTATCGGAC	GTATCCTTCA	AATGCACGCT	1800
AACAGCCGTC	AAGAAATCGA	CACTGTTTAC	TCAGGTGATA	TCGCTGCTGC	CGTTGGTTTG	1860
AAAGATACTA	CAACTGGTGA	CTCATTGACA	GATGAAAAAG	CTAAAATCAT	CCTTGAGTCA	1920
ATCAACGTTT	CAGAACCAGT	TATCCAATTG	ATGGTTGAGC	CAAAAATCTA	AGCTGACCAA	1980
GACAAGATGG	GTATCGCCCT	TCAAAAATTG	GCTGAAGAAG	ATCCAACATT	CCGCGTTGAA	2040
ACAAACGTTG	AAACTGGTGA	AACAGTTATC	TCAGGTATGG	GTGAACCTCA	CCTTGACGTC	2100
CTTGTGTGATC	GTATGCGTCG	TGAGTTCAAA	GTTGAAGCGA	ACGTAGGTGC	TCCTCAAGTA	2160
TCTTACCGTG	AAACATTCCG	CGCTTCTACT	CAAGCACGTG	GATTCTTCAA	ACGTCACTCT	2220
GGTGGTAAAG	GTCAATTCCG	TGATGTATGG	ATTGAATTTA	CTCCAAACGA	AGAAGGTAAA	2280
GGATTCTGAAT	TCGAAAACGC	AATCGTCGGT	GGTGTGGTTC	CTCGTGAATT	TATCCCAGCG	2340
GTTGAAAAAG	GTTTGGTAGA	ATCTATGGCT	AACGGTGTTC	TTGCAGGTTA	CCCAATGGTT	2400
GACGTAAAG	CTAAGCTTTA	TGATGGTTCA	TATCACGATG	TCGACTCATC	TGAAACTGCC	2460
TTCAAGATTG	CGGCTTCACT	TTCCCTTAAA	GAAGCTGCTA	AATCAGCACA	ACCAGCTATC	2520
CTTGAACCAA	TGATGCTTGT	AACAATCACT	GTTCCAGAAG	AAAACCTTGG	TGATGTTATG	2580
GGTCACGTAA	CTGCTCGTCG	TGGACGTGTA	GATGGTATGG	AAGCACACGG	TAACAGCCAA	2640
ATCGTTCGTG	CTTACGTTCC	ACTTGCTGAA	ATGTTCCGTT	ACGCAACAGT	TCTTCGTTCT	2700
GCATCTCAAG	GACGTGGTAC	ATTGATGATG	GTATTTGACC	ACTACGAAGA	TGTACCTAAG	2760
TCAGTACAAG	AAGAAATTAT	TAAGAAAAAT	AAAGGTGAAG	ACTAATCCGT	CCTCACTCTA	2820
GAAGGAAGTC	ACTTAGTGGC	TTCTTTTGT	CTTTAGAAAA	TACCTCTAAA	TATGGTAAAA	2880
TAGTAGAAGA	ATAATGTGAG	GAAAATGAAT	GTCAAATAGT	TTTGAAATTT	TGATGAATCA	2940
ATTGGGGATG	CCTGCTGAAA	TGAGACAGGC	TCCTGCTTTA	GCACAGGCCA	ATATTGAGCG	3000
AGTTGTGGTT	CATAAAATTA	GTAAGGTATG	GGAGTTTCAT	TTCGTATTTT	CTAATATTTT	3060
ACCGATTGAA	ATCTTTTGTAG	AATTAAAGAA	AGGTTTGAGC	GAAGAATTTT	CTAAGACAGG	3120
CAATAAAGCT	GTTTTTGAAA	TTAAGGCTCG	GTCTCAAGAA	TTTTCAAATC	AGCTCTTGCA	3180

639

GTCCTACTAT AGGGAGGCTT TCTCTGAAGG TCCATGTGCT AGTCAAGGTT TTAAGTCCCT	3240
TTATCAAAAT TTGCAAGTTC GTGCTGAGGG TAATCAGCTA TTTATTGAAG GATCTGAAGC	3300
GATTGATAAG GAACATTTTA AGAAGAATCA TCTTCCTAAT TTAGCCAAAC AACTTGAAAA	3360
GTTTGGTTTT CCAACTTTTA ACTGTCAAGT CGAGAAGAAT GATGTCCTGA CCCAAGAGCA	3420
GGAAGAGGCC TTTCATGCTG AAAATGAGCA GATTGTTCAA GCTGCCAATG AGGAAGCGCT	3480
CCGTGCTATG GAACAACTGG AGCAGATGGC ACCTCCTCCA GCGGAAGAGA AACCAGCCTT	3540
TGATTTTCAA GCGAAAAAAG CTGCAGCTAA ACCCAAGCTG GATAAGGCGG AGATTACTCC	3600
TATGATCGAA GTGACGACAG AGGAAAATCG TCTGGTATTT GAAGGGGTTG TTTTGTGATG	3660
GGAGCAAAAA GTGACTAGAA CAGGTCGTGT TTTAATCAAC TTTAAAATGA CGGACTATAC	3720
TTCAAGTTTT TCTATGCAAA AGTGGGTAA AAACGAGGAA GAGGCCAGA AGTTTGACCT	3780
CATCAAGAAG AATTCCTGGC TCCGAGTTCG AGGAATGTG GAGATGAATA ACTTCACACG	3840
CGATTTGACT ATGAACGTAC AGGATCTGCA GGAAGTTGTT CACTATGAGC GGAAGGATTT	3900
GATGCCAGAA GGTGAGCGTC GGGTTGAGTT TCATGCTCAT ACTAACATGT CGACTATGGA	3960
TGCTTTGCCA GAGGTCGAAG AGATTGTTGC AACAGCTGCT AAGTGGGGAC ACAAGGCGGT	4020
TGCTATCACG GACCATGGGA ATGTCCAGTC CTTCCACAT GGCTATAAG CGGCTAAGAA	4080
AGCGGGAATC CAGCTGATCT ATGGGATGGA AGCCAATATC GTGGAGGACC GTGTCCCTAT	4140
CGTCTATAAC GAAGTGGAGA TGGACTTGTC AGAAGCAACC TACGTGGTCT TTGACGTGGA	4200
AACGACGGGA CTTTCAGCTA TCTATAATGA CTTGATTCAG GTTGCGGCTT CTAAGATGTA	4260
CAAGGGGAAT GTTATTGCTG AATTGATGA ATTTATCAAT CCTGGGCATC CCTTGTGAGC	4320
CTTTACTACA GAGTTAACTG GAATTACAGA TGATCATGTC AAAAATGCCA AACCCTAGTA	4380
ACAAGTTTTG CAAGAATTCC AAGAATTTTG CAAGGATACG GTCCTAGTTG CCCACAATGC	4440
TACCTTTGAC GTTGGCTTTA TGAATGCTAA TTATGAGCGG CATGATCTTC CAAAGATTAG	4500
TCAGCCAGTT ATTGATACGC TGAGTTTGC TAGAAACCTC TATCCTGAGT ATAAACGCCA	4560
TGGTTTGGGG CCTTTGACCA AGCGTTTTGG TGTGGCCTTG GAACATCACC ACATGGCCAA	4620
CTACGATGCG GAAGCGACTG GTCGTCTGCT TTTCATCTTT ATCAAAGAGG TAGCAGAAAA	4680
ACATGGTGTG ACCGATTTAG CTAGACTCAA CATTGATCTA ATCAGTCCAG ATTCTTACAA	4740
AAAAGCTCGG ATCAAGCATG CGACCATCTA TGTCAGAAT CAGGTAGGTC TAAAAAATAT	4800
CTTTAAGCTG GTTTCCTTGT CTAATACCAA GTATTTTGAA GGAGTGCCAC GGATTCGGAG	4860
AACGGTTCTA GATGCCCATC GAGAGGGCTT GATTTTAGGT TCAGCCTGTT CAGAGGGTGA	4920

640

AGTTTTTGAC	GTGGTCGTTT	CTCAAGGTGT	GGATGCGGCG	GTTGAGGTGG	CCAAGTATTA	4980
TGATTTTATC	GAGGTCATGC	CACCGGCTAT	CTATGCACCC	TTGATTGCCA	AAGAGCAGGT	5040
CAAGGATATG	GAGGAACTCC	AGACCATTAT	CAAGAGTTTG	ATAGAGGTTG	GAGACCGCCT	5100
TGGCAAGCCT	GTTCTGGCTA	CGGGAAATGT	TCACTATATC	GAACCGGAAG	AAGAGATTTA	5160
TCGTGAAATT	ATCGTCCGTA	GTTTGGGACA	GGTGCGATG	ATTAATCGAA	CTATCGGTCA	5220
TGGTGAACAT	GCCCAACCAG	CACCACTTCC	AAAGGCTCAT	TTTCGAACGA	CTAATGAGAT	5280
GTTGGATGAA	TTTGCCTTTT	TGGGAGAGGA	ACTGGCTCGT	AAACTGGTTA	TTGAAAACAC	5340
CAATGCCTTG	GCAGAAATAT	TTGAATCCGT	TGAAGTCGTT	AAGGGTGACT	TGTATACGCC	5400
TTTCATCGAC	AAGGCTGAAG	AAACAGTTGC	TGAGTTGACC	TATAAGAAAG	CTTTTGAGAT	5460
TTATGGAAAT	CCGCTGCCAG	ATATTGTTGA	TTTGCGGATT	GAAAAAGAAT	TAACATCCAT	5520
ACTGGGGAAT	GGATTGTGCTG	TGATTTATCT	GGCATCGCAG	ATGCTGGTGC	AACGTTCTAA	5580
TGAACGGGGT	TATTTGGTTG	GTTCTCGTGG	GTCTGTGCGA	TCTAGTTTCG	TTGCGACCAT	5640
GATTGGGATT	ACGGAGGTCA	ATCCTCTCTC	TCCTCACTAT	GTCTGTGGTC	AGTGTCAGTA	5700
CAGTGAGTTT	ATCACAGATG	GTTTCGTACG	TTCAGGATTT	GATATGCCCC	ATAAGGACTG	5760
TCCAAACTGT	GGTCACAAAC	TCAGTAAAAA	CGGACAGGAT	ATTCCGTTTG	AGACCTTCCT	5820
TGGTTTTGAT	GGGGATAAGG	TTCTTGATAT	TGACTTGAAC	TTCTCGGGAG	AAGATCAGCC	5880
TAGCGCCAC	TTGGATGTGC	GTGATATCTT	TGGTGAAGAA	TATGCCTTCC	GTGCGGGAAC	5940
GGTTGGTACG	GTAGCTGCCA	AGACTGCCTA	TGGATTTGTC	AAAGGTTACG	AGCGAGATTA	6000
TGGCAAGTTT	TATCGTGATG	CAGAAGTAGA	ACGCCTCGCT	CAAGGAGCGG	CGGGTGTCAA	6060
GCGGACAACA	GGCCAACACC	CGGGGGGAAT	CGTTGTTATT	CCGAACTACA	TGGATGTCTA	6120
CGATTTTACG	CCTGTCCAGT	ATCCAGCAGA	TGATGTCACG	GCTGAATGGC	AGACCACTCA	6180
CTTTAACTTC	CACGATATCG	ATGAGAACGT	CCTCAAATC	GATGTACTGG	GACATGATGA	6240
TCCGACTATG	ATTCGAAAAC	TTCAGGATTT	GTCTGGTATT	GACCCTAATA	AAATTCCCTAT	6300
GGATGACGAA	GGCGTGATGG	CACTCTTTTC	TGGGACTGAT	GTGCTAGGGG	TAACACCTGA	6360
ACAAATTGGA	ACGCCTACGG	GTATGTTGGG	GATTCCAGAG	TTTGGAAACAA	ATTTTCGTACG	6420
TGGAATGGTA	GACGAAACCC	ATCCGACAAC	CTTTGCGGAA	TTGCTTCAGC	TGTCTGGTCT	6480
GTCCACGGT	ACTGATGTTT	GGTTGGGGAA	TGCTCAGGAT	CTGATTAAGC	AAGGAATAGC	6540
GGACCTATCG	ACTGTTATCG	GTTGTCGGGA	CGACATCATG	GTTTACCTCA	TGCATGCGGG	6600
TCTGGAACCT	AAGATGGCCT	TTACCATTAT	GGAACGGGTA	CGTAAGGGTT	TGTGGCTAAA	6660
GATTTTCAGAA	GAGGAGAGAA	ATGGCTATAT	CGAAGCAATG	AAGGCTAATA	AGGTGCCAGA	6720

641

GTGGTATATC GAATCCTGTG GGAAAATTAA GTACATGTTC CCTAAGGCCC ATGCGGCAGC	6780
CTACGTTATG ATGGCCTTGC GTGTAGCTTA CTTCAAGGTT CACCATCCTA TTTATTACTA	6840
CTGTGCTTAC TTCTCCATTC GTGCTAAGGC TTTTGATATC AAGACCATGG GTGCGGGCTT	6900
GGAGGTCATC AAGCGCAGAA TGAAGAAAAT CTCTGAAAAA CGGAAGAACA ATGAAGCCTC	6960
TAATGTGGAA ATCGATCTCT ATACAACTCT TGAGATTGTC AATGAGATGT GGAACGAGG	7020
TTTCAAGTTT GGTAAATTAG ATCTCTACTG TAGTCAGGCG ACAGAGTTC TCATCGACGG	7080
GGATACCCCTT ATCCCACCAT TTGTAGCAAT GGATGGTCTG GGAGAGAACG TTGCCAAGCA	7140
ACTGGTGCGG GCGCGTGAAG AGGGAGAATT CCTCTCTAAA ACAGAACTAC GCAAGCGTGG	7200
TGGACTCTCA TCAACCTTGG TTGAAAAGAT GGATGAGATG GGTATTCTTG GAAATATGCC	7260
AGAGGATAAC CAGTTGAGTT TGTTTGATGA GTTGTTTTAA AAAATTGCTT AATAATCTAT	7320
TAAAAGAGGC TAACGTATAT CCAATAGATT TACATTAGCT TTCTTTTTTG TTAATAAGT	7380
CTATGGAAAG AGGGTGAGAG TATGTCAAAG ATGAGTATAA GCATCCGCTT GGATAGTGAG	7440
GTTAAGGAGC AGGCCCAACA GGTGTTTAGT AATCTGGGAA TGATATGAC AACAGCTATT	7500
AATATTTTCC TTCGTCAGGC AATTCAATAT CAGGGATTAC CTTTGTGATG TAGACTAGAC	7560
GAAAATCGGA AGTTGCTCCA AGCGTTAACG GATTTAGACC AAAATCGTAA TATGAGCCAG	7620
TCTTTTGAAT CAGTCTCAGA TTTGATGGAG GACTTACGTG CTTAAGATTC GTTATCATAA	7680
ACAGTTTAAA AAAGATTTTA AGTTGGCTAT GAAGCGTGGT TTGAAGGCAG AATTATTAGA	7740
AGAAGTTTGT AATTTTCTGG TTCAAGAAAA AGAACATCCT GCCAGAAATC GTGATCATTC	7800
ATTGACGGCA TCCAAGCATT TTCAAGGAGT TCGTGAATGC CATACCCAGC CAGATTGGCT	7860
TTTGGTTTAT AAAGTAGACA AGTCGGAATT GATTTTAAAT TTGCTGAGGA CAGGCAGTCA	7920
CAGTGATTTA TTTTAATCTA TTTTAAGGGG GTTCTCATGA AACTAAGAAT ATTTGCGGAA	7980
GATAAGCCGG CTAAGAAGGT ATTTGAATAT CAATTAGAAC TTGCTGATCG TACAATTCTT	8040
CTATCGACAG CACTCTTGTC AGGTGCTATT GCTTTAGCAG GAATCTTTTC TGCTTTGAAA	8100
GAAAAATAAA AATAGAAAAG AGAAAACAGA ATGGTTTTAC CAAATTTTAA AGAAAATCTA	8160
GAAAAATATG CGAAATTGTT GGTGCGAAC GGAATTAACG TGCAACCTGG TCACACTTTG	8220
GCTCTCTCTA TTGATGTGGA GCAACGTGAA TTGGCACATC TAATCGTGAA AGAAGCTTAT	8280
GCCTTGCGTG CGCATGAGGT CATCGTTCAG TGGACAGATG ATGTGATTAA CCGTGAGAAA	8340
TTCTTCCATG CCCCATGGA GCGTTTGAC AATGTGCCAG AATACAAGAT TGCTGAGATG	8400
AACTATCTCT TGGAGAATAA GGCTAGCCGT CTTGGAGTTC GTTCATCTGA TCCAGGTGCC	8460

642

TTGAACGGAG TGGACGCTGA CAAGCTTTCA GCTTCTGCTA AAGCTATGGG ACTTGCCATG	8520
AAGCCTATGC GTATCGCAAC TCAATCTAAC AAGGTTAGCT GGACTGTAGC AGCTGCAGCA	8580
GGACTTGAGT GGGCTAAGAA AGTCTTCCCA AATGCTGCGA GCGACGAAGA AGCAGTTGAT	8640
TTCTTTTGGG ACCAAATTTT CAAAACCTTGC CGTGTCTACG AAGCAGATCC TGTTAAGGCT	8700
TGGGAGGAAC ATGCAGCCAT TCTCAAGAGC AAGGCCGATA TGCTTAATAA GGAGCAATTT	8760
TCAGCCCTTC ACTACACAGC GCCAGGAACA GATTTAACAC TTGGTTTGCC AAAGAACCAC	8820
GTTTGGAAT CAGCTGGTGC TGTCAATGCA CAGGGCGAAG AATTCTTGCC AAATATGCCA	8880
ACAGAAGAGG TCTTCACAGC GCCTGACTTC CGTCGTGCAG ATGGTTATGT CACTTCTACA	8940
AAACCGCTTA GCTACAACGG AAATATCATT GAAGGCATTA AGGTGACCTT TAAGGATGGA	9000
CAAATCGTAG ATATCACTGC TGAGAAGGGT GATCAGGTTA TGAAAGACCT TGTCTTTGAA	9060
AATGCGGGTG CGCGTGCCTT GGGTGAATGT GCCTTGGTAC CAGATCCAAG TCCAATTTCT	9120
CAGTCAGGCA TTACCTTCTT TAACACCCCTT TTCGATGAAA ATGCGTCAAA CCACTTGGCT	9180
ATCGGTGCAG CCTATGCGAC TAGCGTTGTT GATGGAGCGG AGATGAGCGA AGAGGAGCTT	9240
GAAGCTGCAG GGCTTAACCG TTCAGATGTT CACGTAGACT TTATGATTGG TTCTAACCAA	9300
ATGGATATCG ATGGTATTCG TGAGGATGGA ACGCGGGTAC CTCTTTTCCG TAATGGGAAT	9360
TGGGCAAAT AAGGAGATAA TATGTTAGGA AGTATGTTTCG TTGGTCTCCT AGTGGGATTT	9420
TTAGCAGGTG CTATGACCAA TCGTGGAGAG CGAATGGGAT GTTTTGGAAT AATGTTTCTC	9480
GTTTGATCG GAGCCTTTCT AGGTCACCTG CTCTTTGGAA CTTGGGGGCC AGTTTATCA	9540
GGAACAGCTA TTATCCCAGC GATTTTAGGA GCCATGATTG TTTTAGCTAT TTTTGGAGA	9600
CGAGGAA	9607

(2) INFORMATION FOR SEQ ID NO: 81:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14231 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

CTACAAGATA ATTCCAGCTA TAACATCCGC TATAATAGTA AGAGCGAGCT CTATGATAAG	60
GCTCATTAGT TTCACCTCCT CTCACGAACC CATAGGAACG TAATCGGTAA CCGATGACAA	120
AAATAGTATA CCACAATACA TTTAGATCAT CAAGGTCCT TAATTCTTGA AATATCAGAT	180
CTAAGAGAAA AATCTTTAAA ATCAGAAAAA CGCATAATAT CAGGTGTGCA AAAACTTGAT	240

643

ACTATGCGTT TTATTGTGGG AAGGTTTACT CCATTTTCTC CTGAAATTGA GTTTTGTGCC	300
AGCCTCTGTT TTTAGGGTTG CTAAGAAAAT AATGTCATGT GGTGAATATT TGTAAATCAG	360
TCAGCAGACA GAACGATACT CTTGCGAAAAT CTCTTCACAT CATGTCAGCT TCGTCTTTCC	420
GTATATATGT GACTGACTTC ATCAGTTCTA TCTACAACCT CAAAACAGTG TTTCGAGCTG	480
ACTTGATCAA TTTTCAAATC TGTACTTTGA GCAAGCTGAG ACTAGCTTCC TATTTGATTT	540
TCATTGAATA TCAGAAACCC ATTCTCCATC AAATAATTCTG ACTGCGTCTA ATAATTTTTG	600
ATCTGGCACG GTGTCTGAAA TAAAGGTTGT GTATTTGGAG AGGGGATTAA TTTTAAAAAA	660
TCCAGTCTTG TAAAATTTAG AACTATCAAT CAGTAAGATG GTTTCATGGG CTTTGTCAAT	720
AATATCTCTT TTTGAAATAG CTTGGCTGAG AGAAGCTTCA TAAACATATT GGTCAATCAAT	780
ACCTCTTGCT GAACAAAATG CTAAATCGAT ATTAATAATGA TCTAATAAAG AATTTTCCTT	840
ATCATAGTTG ACCACGGAAC AGGATTGATG TTTGACCTCG CCAGATGTGA TAAAGATTTT	900
GGAGCTATCT TTAACAGTTT CAGATAGGGT TTGTGCAGTA TGTAACCAT TTGTAAAAAT	960
AATCAAATTA TCAAGTTCAG AAAGATAGGG ACAGAGTTCG TAGACAGTAG TACTAGAATC	1020
TAGATAGATA CACATACCAG ACCGAATAAA GTCTTTAGCG AGACTAGCGA TTAGTCTTTT	1080
TTGCCTAGTA CTTTCTCCTT CACGTATTTG ATGAGAAAGT TCAATTGTGT TCATAGAGGA	1140
CAGGCTCACG TATCCGTGCT TTCTTTTGAT AAGACCTTGA TTTTCTAAGA AAATTAAATC	1200
ACGACGTAAG GTAAGTGTGC TGGAGAAAGT GATTCTGCC AGCTCTTTTA CGGCAATTCT	1260
TTTTTTCTTT TTGATAATTT CAATCAATTC AAGTACACGT TCATCTTTTA TCATAAGCTC	1320
CTCCTAATTT ATCATTTCAA CTATATTATA GCACAAATTG GAGGAATTTG AATTATTTTT	1380
ATGAATATTG GGTAAACATT TGAACATTAT TCAAGTAAGC GTTCACATAT TGAAAAATA	1440
AAACGTGGGG ATTATAATAA AGTTAATCma GGACGAAGAG AGAAGAAAAA TGGAAGCGGT	1500
TTTAGCAATA GATTAGGTG CGACTTCTGG AAGAGCAATC GTTGGTTACC TTTCTGAAAA	1560
TAAACTAGTA ATGGAAGAAA TAAATCGCTT TTCTAATCTA CCTATTAGAG TAAAAGGGCA	1620
TTTATCTTGG GATATTGACT TTCTACTAGC TAAAATTCTT GAAAGTATCC GCTTGGCTAA	1680
TACTAGTTAC AAGATTTTAT CTATCGGTAT TGACACATGG GGAGTTGATT TTGGACTGAT	1740
TGATAATGAA GGTAAGCTGT TATTACAACC TGTTCATTAT CGTGATGAAA GAACAAAGGG	1800
AGTGTTAAAG GAAATATCTG AAATGACTGA ATTAGAAAAA CTGTATTCTAG AGACAGGAAA	1860
TCAGATTATG GAGATAAATA CCTTGTTTCA ACTCTTTAAG GCACGTCAAG AATCTCCTGA	1920
CTCTTTCTAT AAGACCAATA AGATTCTTTT AATGCCAGAT TTGTTTAATT ATCTCTTGAC	1980

644						
AGGTAAGTTT	GCTACAGAAA	AAAGCATTGC	TTCAACAACCT	CAATTATTTG	ATCCTAGGAG	2040
TCAAAATTGG	AATCAGAATA	TCTTAAAACT	ATTTGAATTG	GATTCATCTT	TACTTCCTGA	2100
AATTGTTTCA	GAGGGAAATG	TTCTTGGAAG	GATAAAAGAG	GAGTATGGTT	TAGGCGATAT	2160
TCCTGTTGTG	AATGTTTGTA	GTCATGATAC	AGCAAGCGCG	ATTGTCTCAG	TACCTAAGAC	2220
AGAAGGTAGT	TTATTTATTT	CATCAGGTAC	TTGGTCTTTG	GTTGGAGTGG	AACTTACTTC	2280
ACCGATTCTT	ACTACCGAAT	CCTTCAGTTA	TGGATTTACA	AATGAAGTCG	GTAAAGATGG	2340
AGTGATTACA	TTTCTGAAGA	ATTGTACAGG	GTTGTGGATC	ATAGAGGAAC	TAAGACGTTC	2400
ATTTGAACGA	AGAGGGAAAG	CCTATTCTTT	TGATGATATT	AGGACAATGG	TGGAGAAAGA	2460
AAAAGAAAAT	CTTCCTCTGA	TTGATACTGA	ATCAACTGAA	TTTGCAACAG	AATCTGATAT	2520
GCACAAGACT	TTGACAGAAT	ATCTAGCTTA	TCATCATGAA	ACTAGAGAGT	GGACAGATGG	2580
ACAACTATTT	AAGATTGTTT	ATGAAAGCCT	AGCTGAAACG	TATAGGAAAG	CGATAGAGTT	2640
ACTAGAAGAA	CTAACTCATA	AGGTTTATAA	GAGGATATAT	GTGATTGGAG	GAGGTGCTAG	2700
AGCCAGTTAC	TTTAACCAAA	TGATTGCTGA	TAGAACTGGT	AAAGAGGTTT	TTACAGGTTT	2760
GACTGAGGCT	ACAGCTGTGG	GGAATATTGT	TGTGCAGCTC	ATAGCTATGG	GACAATTAAA	2820
AGGGATGGAA	GAGGCTCACC	ATGTTATTGA	GGAGTTTCTA	CAATTAGAGA	GTTATTACTC	2880
CCAAAAGAAT	TAAAAAGATT	GAGAGTTTGT	AAATTTGCCT	CCCTCCCCCT	TCTTAGCTTT	2940
TGTGCAGGAA	GGGGGGATAA	TTGGTGAATT	GAAAAATATT	TAGTGTTTTG	ATATGAGGAG	3000
GACAAGGATG	TCAGATGTAA	AACAAGAATT	AATTAAATAT	GGTAAGAAGC	TAGTAGAAAC	3060
AGATTTGACG	AAAGGAACAG	GTGGGAATCT	CAGCGTTTTC	GATCGTGAAA	AACAATTGAT	3120
GGCAATTACC	CCGTCGGGTA	TTGATTTCTT	TGAAATCAAA	GAATCCGATA	TTGTAGTGAT	3180
GGATATTAAT	GGAAATGTTG	TAGAGGGAGA	ACGCTTGCCA	TCTAGCGAAT	GGTATATGCA	3240
TTTGATTCAA	TATCAAATCT	GTGATGATAT	CGATGCAATT	ATCCATGCTC	ATACAACTTA	3300
TGCAACAGTA	TTAGCTTGTC	TCAGAGAACC	ACTTCCAGCG	AGTCATTATA	TGATTGCAGT	3360
GGCAGGGAAA	GATGTTCTGGG	TAGCTGAGTA	TGCAACATAT	GGCACGAAAG	AATTGGCTGT	3420
GAATGCAGCT	AAAGCAATGG	AAGGTCGTAG	AGCAGTTTTA	CTAGCGAATC	ATGGAATTTT	3480
AGCAGGTGCA	CAAAATTTAT	TGAATGCATT	TAATATTGTT	GAAGAAGTTG	AATATTGTGC	3540
AAAAATTTAT	TGTTTAGCTA	AGAATTTTGG	AGAGCCAGTA	GTTCTTCCTG	ATGAGGAGAT	3600
GGAATTGATG	GCAGAAAAAT	TTAAACATA	CGGTCAGAGA	AAATAGGGAG	GATATTAATG	3660
TTAAACATA	TACCGAAAAA	TATTTCTCCA	GATTTATTGA	AGACTTTAAT	GGAATGGGA	3720
CATGGAGATG	AAATAGTATT	AGCTGACGCG	AATTATCCTT	CTGCCTCATG	TGCAAATAAG	3780

645

CTAATTCGTT GTGATGGTGT AAATATTCCA GAATTATTAG ATTCCATTCT GTATTTAATG	3840
CCATTAGATA GTTACGTCGA TAGTTCAATT CAGTTTATGA ACGTTGTTTC GGGTGATGAT	3900
ATTCCTAAGA TATGGGGTAC CTATAGACAG ATGATTGAAG GTCATGGTAC AGATCTTAAA	3960
ACGATTACTT ATCTTAGAAG AGAAGACTTT TATGAACGTA GTAAGAAAGC TTATGCTATT	4020
GTTGCTACAG GAGAAACTTC ACTTTATGCT AATATTATCC TTAAGAAAGG AGTAGTTGTT	4080
GAAAGAGAAA ATGTTCAATA GAGGAATTTT AGTTGCCAGT CATGGTAATT TTGCTAGCGG	4140
AGCTCTCATG ACCGCAGAAA TGTTTGTTGG TGAGACAACA AATGATAGAG TTAGGACATT	4200
AGGTTTGATG CCTGGAGAGA ATATTGTAGA GTTTGAGCAT TATTTTAAAA ATCAAGTGGA	4260
TGAACTGTTA GACTCAAATC AAGAGGTTAT CGTTTGGACT GACTTGATTG GAGGAAAGTCC	4320
TAATAATGTG GCTTTGTCAC GGTTTTAAAA TTTGGATTCA GTTGATATTG TAACAGGGTT	4380
TAATATCCCT CTCCTAGTGG AATTAATATC AAGTTATGAT TCAAAAATCA ATTTAGAAGA	4440
AATTGTTTAC AATGCTCAAA ATAGTTTGTT TAATGTTAAA CAACAACCTA ACGTAGAGGA	4500
GGAAGAAGAT TTATGTCTAT AGAGTTTGTT CGTATTGATG ACCGCTGGT ACATGGTCAA	4560
GTTGTCACTA CGTGGCTAAA AAAGTATGAT ATTGAGCAAG TTATCATTTG TAATGATCGC	4620
ATCTCAGAAG ATAAAACACG ACAATCTATT TTAAGATTTT CTGCACCGGT AGGTTTAAAA	4680
ATTGTTTTCT TTAGTGTAAG ACGGTTTGTG GAAGTTTAA ACTCTGTGCC AATAAAAAAG	4740
AGAACAATGC TGATATATAC AAATCCAAAA GATGTGTATG ATTCTATTGA AGGAAATTTA	4800
AAATGGAGT ACCTCAATGT AGGACAGATG AGTAAACGG AGGAAAATGA AAAGGTAACG	4860
GGAGGTGTAG CTCTAGGTGA AGAAGACAAA TATTATTTTA AGAAAATAGT TGATAAGGGA	4920
ACGAGAGTTG AAATTCAAAT GGTTCCTAAT GATAAAGTTA CAATGTTGGA AAAATTTTAA	4980
TAAAAATAAT TTAAGGAGGT ACAGTATATG CTATTCACAC AAGCATTACT GGTGACATTA	5040
GTTGGGATTA TTGCCACTAT TGACTATAAT GGACCGTTAT TTATGATTCA CCGTCCGTTA	5100
GTTACAAGTG CAATGGTTGG CTTAGTATTA GGAGATTTCA CCAAGGTGT TCTTATTGGT	5160
TCAGCTCTTG AATTAAGTTG GCTCGGTGTA ACAGGTATTG GAGGTTATAC TCCACCAGAT	5220
ACTATTTTCA GTGCGATTAT TGGTACTGCA TTTGGTATTT TATCTGGTCA AGGAGAAACT	5280
GCTGGTATCG CTATAGCAGT TCCAATTGCA GTTGCTACCC AACAGTTGGA TGTTCCTGCA	5340
AAAACTTTAG ATGTTTATTT TGTGAAAAA GCTGATAATG ATGCTAAAA CGGAGATTAT	5400
TCAAAGATCG GTTTTTATCA TTATTCAAGT TTGGTTTAA TCACGTTATT TAAAATTGTA	5460
CCAATTTTCC TAGCTATTAT GCTTGGAGGG GAATATGTGG CAGACTTGTT TGCTAAGGTT	5520

646

CCACCAATCG	TTATGCAGGG	ACTTAACTCT	GCAGGTGCTT	TACTACCTTC	AATTGGTTTT	5580
GGTATGCTTT	TAAATATGAT	GCTCAAGAAA	AATATGTGGG	TATCTTGTG	GATTGGATTG	5640
ATTTGTTCTG	TGTATGGAGG	AATGTCAACC	ATTGGGATCT	CACTAGTTGG	TATTGCGGTA	5700
GCATACTTCT	ACGATATGAT	TGGAAGCAAA	CCACAAGAAA	CAACTTCAAG	TAGTGATGTT	5760
GAGGAGGATC	TTGATCTATG	ATGAATAATA	AAGTAACTAA	AGTTGAACTT	AAAAAAGTTT	5820
TCAAACGAAG	TTTTATGTAT	GGTTCTTCAT	GGAACATGA	GAGAATGCAG	AACCTAGGTT	5880
TTCTATATAC	AATTCTTCCA	GTATTGAAAA	AACATATACC	AGACAAAGAT	TCAGCTTCTC	5940
CTGCAATGAA	ACGTCACCTT	GAGTTTTTCA	ATACTCATCA	AACAGCGGCA	CCATTTATTC	6000
TTGGAGTTAC	TTCCGCTATG	GAAGAACAAG	AAGGAAATGA	AGGTGCAGCT	TCAATTACTG	6060
GTATTAAAGT	TGGCTTGATG	GGGCCACTGG	CTGGTCTAGG	AGATAGTTTG	TTCTGGCTGA	6120
CACTAGTTCC	TATCTGTTTT	AGTATTGGTG	CGTCTTATTC	TAAAGACGGC	GGTGCTTTAG	6180
GTATCTTTAT	CGCCTTAATA	TTGTTTAATA	TTATTAATAT	TCCTGTTAAA	TATTTGCGTT	6240
TGAAATATGG	GTATACTAAG	GGTCTAGTC	TTATCCAAGA	AAATAATACA	AAAGGAACAT	6300
TGAATCGCGT	TACGAGTATG	GCGACAGCAT	TAGGGCTAGT	ACTAGTGGGT	GGTTTGATTC	6360
CATCAATGGT	TGGTATTAAT	TTTGGAATAG	AATTTAAGCA	GGGGGAACCT	GTTATTTCTG	6420
TTCAAGAAAT	GATTACAAAA	TTAATTCCAG	GATTTATCCC	TATGGCTTTG	ACTTTATTAA	6480
TGTGTAAATT	AATTAGAAAA	GGAAAGAATC	CGGTTGTACT	AATCTTTAGT	GTTATGGCTA	6540
TTGGAGTTAT	TCTAGTTGTT	TTAGGAATTT	TGAAGTAGTA	GAAAGTGTGG	AGGTGGTATT	6600
TGGGATATCA	CCTCCATTTT	GGAAGAGAGG	TAAAGAGTGA	AATTATGGTA	TAAGAAAGCT	6660
GCCGCAAAAT	GGAATGAAGC	CTTGCCGATT	GGGAACGGTC	ATTTAGGTGG	TATGATTTAT	6720
GGTTCAGCTA	CAAAAGAATG	TATTCAACTA	AACGATGAGA	CTATTTGGTA	TAGAGGAAAG	6780
TCAGATAGAA	ATAATCCAGA	CTCACTATTG	CATCTTAAAA	AAATTCGGGA	ATATCTTTTA	6840
GATGGAGAAA	TTCAGAAAAG	CGAAGAATTG	ATAAAGTTAA	CAGTGTTTGC	TACCCCAAGA	6900
GATCAAAGCC	ACTATGAATT	ACTTGGGGAA	CTTTACATTG	AGCATATAGA	TATTCAGTCT	6960
TGTGCTCTTT	CATTGTATGA	AAGAGAGCTA	GATTTAGATA	CAGCTATTTT	TAATGTTGTG	7020
TTTGAGCCTA	ATAGTTGTAA	TTTACAAATA	AAAAGAGAAT	ATTTTACGAG	TTTTAATAAG	7080
AATATTTTAT	GTGCGGTAT	AGTGTATCA	GTCAAAAACA	CATTAAATTT	AAACATTAAT	7140
TTGGGTAGAA	ATAAACGGTT	TAATGACGAA	GTATCTAAAC	TGGATTCAAG	TACAATTTTA	7200
ATGTCGGCCT	CTGCTGGAGG	TAGAAAAGGT	GTTTCAAGTTA	AAGTAGTATG	TCATTCTAAG	7260
GTTACGGATG	GTGAAGTAAG	TGTATTGGGA	GAGACAATAG	TTATTCGGAA	TGCTACAGAG	7320

647

GTATTTCTTT ATCTCAAATC AATGACGGAT TATTGGGGAA ATATAGATAT TTCTTCTCTT	7380
CAGGAGAAAT TTAGTAGTAT TGATTACTTT ACAGAAAAAG ATGAACATGT AAAAAAATAT	7440
CAGGAGCAAT TTAATAGAGT TGATTTTAAA CTAGACTATA GTAAAGGTTG TCTTAGCATT	7500
CCAACGAATC TACTTCTTGA AAACACTAAA AAGTATAGTA ACTACTTGAC TAACTTGTTA	7560
TTTCATTATG GAAGATATCT GTTAATATCG TCTAGTCAAC CGAATGGTTT ACCTGCCAAT	7620
CTTCAAGGAA TATGGTGTGA TGAATTAAAT CCAATTTGGG GTTCTAAATA TACGATTAAT	7680
ATTAATACTC AAATGAATTA TTGGATGGTA GGTCCATGTG ATTTACCAGA AGTAGAATAT	7740
CCATTATTTG ATATGCTCGA AAGAATGAGA GAACCGGGAA GACTAACCGC TAAGAAAAATG	7800
TATGGAGCTA GAGGTTTTAC AGCACATCAT AATACGGATG GTTTTGGCGA TACGGCTCCC	7860
CAATCTCATG CCATGGGGGC TGCAATTTGG GTATTAACATA TTCCATGGTT ATGTACTCAT	7920
ATTTGGGAAC ACTATTTATA TTTCCAAGAT GAGCGTATTC TTACGGAACA TTTTGAAATG	7980
ATAAAGAAG CATTTCTTTT CTTTGAAGAT TATTTATTG AGGTGGATGG CTACTTGATG	8040
ACAGGTCCAA GTGTCTCACC GGAAAAATAA TATCGCTTAA AAAATGGTAT TGAAGGAAAT	8100
GCTGTCTAT CATCTACAAT TGATAATCAA ATTCTAAGAT ATTTTGTGA TTCATGCATT	8160
GGCATTGCAA AACAATTAGG AGACAATTCG GATTTTATTA GTCGTGTGAA GGAGTTAAAA	8220
AAGAACTAC CTAACAACAA AATAGGTAGT AATGGGCAA TCCAAGAATG GTTAGAAGAT	8280
TATGAAGAAG TAGAGCCTGG GCATAGACAC ATTTACCTC TATTTGGGCT TTATCCTTAT	8340
AATGAGATTG ATATTCATAA AACTCCGGAA TTAGCAGAAG CAGCTAAAAT CACTATCAAT	8400
AGGAGATTAT CAAACGCTAA TTTTTTATCT TCACAGGAGA GGGAGCAAGC GATTAATAAT	8460
TGGTTAGTAA GTGGTTTGCA TGCTAGTACA CAAACAGGTT GGAGTGCTGC ATGGCTGATT	8520
CATTTTTTTG CGAGACTATA TCAAGGTGAA CTGCTTATA ACCAGATTAA TGGTTTGTTA	8580
AATAATGCGA CTCTTGCAA TTTATTTCTT GACCATCCAC CATTTCAAAT TGATGGTAAT	8640
TTAGGTTTGG TGAGTGGAAT TTGTGAATTA TTAGTACAGA GCCATCATAA TTGGTTATCA	8700
CTAATTCAG CTTTACCTTC TGCTTGGTCA GAAGGAGAAG TGAAAGGTTT CAGAGTAAGA	8760
GGAGGATATA AGGTATCGTT TGCTTGGAAT AATGGGGATA TAACATTCCT AAAATTGGAA	8820
GGAGGAAACA AAGATCAAAA AGTAAGAGTA AGAATATATG GCAAAAATAC TGATGTACAA	8880
AATATTGAAT TGGTATTTAA TTCAGAAAAA ATTATTGAGT TAAATTTTTA GGTATAAGTC	8940
ATGAATAAAG AAAAAATAA AAGAAAATTA ATCACAATAT TGTTTGTATG TATTGGGATG	9000
TTATGTTTTG GATTGTTAGC AGGAGTTAAG GCTGATAATC GTGTTCAAAT GAGAACGACG	9060

648						
ATTAATAATG	AATCGCCATT	GTGCTTTCT	CCGTTGTATG	GCAATGATAA	TGGTAACGGA	9120
TTATGGTGGG	GGAACACATT	GAAGGGAGCA	TGGGAAGCTA	TTCTGAAGA	TGTAAAGCCA	9180
TATGCAGCGA	TTGAACTTCA	TCCTGCAAAA	GTCTGTAAAC	CAACAAGTTG	TAT'TCCACGA	9240
GATACGAAAG	AATTGAGAGA	ATGGTATGTC	AAGATGTTGG	AGGAAGCTCA	AAGTCTAAAC	9300
ATTCCAGTTT	TCTTGGTTAT	TATGTCGGCT	GGAGAGCGTA	ATACAGTTCC	TCCAGAGTGG	9360
TTAGATGAAC	AAT'TCCAAAA	GTATAGTGTG	TTAAAAGGTG	TTTTAAATAT	TGAGAATTAT	9420
TGGATTTACA	ATAACCAGTT	AGCTCCGCAT	AGTGCTAAAT	ATTTGGAAGT	TTGTGCCAAA	9480
TATGGAGCGC	ATTTTATCTG	GCATGATCAT	GAAAAATGGT	TCTGGGAAAC	TATTATGAAT	9540
GATCCGACAT	TCTTTGAAGC	GAGTCAAAAA	TATCATAAAA	ATTTGGTGT'T	GGCAACTAAA	9600
AATACGCCAA	TAAGAGATGA	TGCGGGTACA	GATTCTATCG	TTAGTGGATT	TTGGTTGAGT	9660
GGCTTATGTG	ATAACTGGGG	CTCATCAACA	GATACATGGA	AATGGTGGGA	AAAACATTAT	9720
ACAAACACAT	TTGAAACTGG	AAGAGCTAGG	GATATGAGAT	CCTATGCATC	GGAACCAGAA	9780
TCAATGATTG	CTATGGAAAT	GATGAATGTA	TATACTGGGG	GAGGCACAGT	TTATAAT'TTC	9840
GAATGTGCCG	CGTATACATT	TATGACAAAT	GATGTACCAA	CTCCAGCATT	TACTAAAGGT	9900
ATTATTCCTT	TCTTTAGACA	TGCTATACAA	AATCCAGCTC	CAAGTAAGGA	AGAAGTTGTA	9960
AATAGAACAA	AAGCTGTATT	TTGGAATGGA	GAAGGTAGGA	TTAGTTCATT	AAACGGATTT	10020
TATCAAGGAC	TTTATTTCGAA	TGATGAAACA	ATGCC'TTTAT	ATAATAATGG	GAGATATCAT	10080
ATTCTTCCTG	TAATACATGA	GAAAATTGAT	AAGGAAAAGA	TTTCATCTAT	ATTCCCTAAT	10140
GCAAAAATTT	TGACTAAAAA	TAGTGAGGAA	TTGTCTAGTA	AAGTCAACTA	TTTAAACTCG	10200
CTTTATCCAA	AACTTTATGA	AGGAGATGGG	TATGCTCAGC	GTGTAGGTAA	TTCTTGGTAT	10260
ATTTATAATA	GTAATGCTAA	TATCAATAAA	AATCAGCAAG	TAATGTTGCC	TATGTATACT	10320
AATAATACAA	AGTCGTTATC	GTTAGATTTG	ACGCCACATA	CTTACGCTGT	TGTTAAAGAA	10380
AATCCAAATA	ATTTACATAT	TTTATTGAAT	AATTACAGGA	CAGATAAGAC	AGCTATGTGG	10440
GCATTATCAG	GAAATTTTGA	TGCATCAAAA	AGTTGGAAGA	AAGAAGAATT	AGAGTTAGCG	10500
AACTGGATAA	GCAAAAATTA	TTCCATCAAT	CCTGTAGATA	ATGACTTTAG	GACAACAACA	10560
CTTACATTAA	AAGGGCATA	TGGTCATAAA	CCTCAGATAA	ATATAAGTGG	CGATAAAAAT	10620
CATTATACTT	ATACAGAAAA	TTGGGATGAG	AATACCCATG	TTTATACCAT	TACGGTTAAT	10680
CATAATGGAA	TGGTAGAGAT	GTCTATAAAT	ACTGAGGGGA	CAGGTCCAGT	CTCTTTCCCA	10740
ACACCAGATA	AATTTAATGA	TGGTAATTTG	AATATAGCAT	ATGCAAAACC	AACAACACAA	10800
AGTTCTGTAG	ATTACAATGG	AGACCCTAAT	AGAGCTGTGG	ATGGTAACAG	AAATGGTAAT	10860

649

TTTAACTCTG GTTCGGTAAC ACACACTAGG GCAGATAATC CCTCTTGGTG GGAAGTCGAT	10920
TTGAAAAAAA TGGATAAAGT TGGGCTTGTT AAAATTTATA ATCGCACAGA TGCTGAGACT	10980
CAACGTCTAT CTAATTTTGA TGTGATTCTA TATGACAATA ATAGAAACGA AGTTGCTAAG	11040
AAACATGTTA ATAATTTGTC GGGTGAATCT GTTAGTCTAG ATTTCAAAGA AAAAGGAGCA	11100
AGGTATATTA AAGTTAAATT ACTAACGAGT GGAGTGCCTT TGAGTTTAGC AGAAGTAGAG	11160
GTTTTTAGAG AATCAGATGG TAAGCAATCT GAAGAGGATA TAGATAAAAT AACAGAAGAT	11220
AAAGTAGTCT CTACAAATAA GG TAGCTACT CAAAGTTCAA CCAATTATGA GGGTGTAGCT	11280
GCTTTAGCAG TTGATGGTAA TAAAGATGGA GATTACGGAC ATCATTTCGGT GACTCATACT	11340
AAGGCAGATT CTAACGCTTG GTGGCAGGTC GATCTGGGAG AAGAGTTTAC GGTTCCTAAA	11400
GTTGATATTT ATAATAGAAC AGATGCCGAA CCTCAGCGTT TATCTAATTT TGATGTTATT	11460
TTTCTATCTT CATCAGGAGA AGAAGTTTTT AGAAGACATT TTGATAAAGT AGTTGATGGT	11520
TTGTTATCTT TAAAAGTACC TTCTGTAGGG GCTAAGCTAG TCAAAATAGA ATTAAAATCA	11580
GCAGCTATTC CGTTAAGTTT AGCGGAAGTT GAAGTCTATG GTTCAAAGAG AACTCCGAAG	11640
AAACTTTCTA ATATTGCATT AACAAAAGAA ACTCGACAGA GTTCAACGGA TTACAATGGT	11700
TTTTCTCGTC TAGCAGTTGA TGGAAATAAA AACGGAGATT ATGGTCATCA TTCAGTGA	11760
CATACCAAAG AAGATTCTCC TTCATGGTGG GAGATAGATT TAGCACAAAC CGAAGAATTA	11820
GAAAAGTTAA TTATTTATAA TAGAACAGAT GCTGAAATTC AGAGATTATC AAATTTTGAT	11880
ATTATTATAT ATGATTCAAA TGATTATGAA GTTTTTACAC AACATATTGA CAGTTTAGAA	11940
AGCAATAATC TATCCATAGA CTTAAAAGGA CTGAAGGGAA AAAAGGTTAG AATTTCTTTG	12000
AGAAGCGCAG GAATTCCTTT AAGTTTAGCA GAGGTAGAGG TTTATACTTA TAAGTAATTT	12060
TAAAAATTAT CACCCAGGCT ACCGTAAATA TAATGGAGAT GG TAGTATGA AAGAAACAGA	12120
AAAATAAGAG GAAAATAGTA TGATTCAACA TCCACGTATT GGGATTTCGTC CGACTATTGA	12180
TGGTCGTCGT CAAGGTGTAC GCGAATCACT TGAAGTGCAA ACAATGAACA TGGCTAAAAG	12240
TGTGGCAGAT TTGATTTCOA GCACATTGAA ATATCCAGAT GGGGAACCTG TGGAATGCGT	12300
GATTTCTCCA TCTACTATTG GCCGTGTACC AGAGGCTGCA GCTTCCCATG AGTTGTTTAA	12360
AAAATCAAT GTTTGCCGAA CAATTACAGT TACACCATGC TGGTGTTATG GTAGTGAAAC	12420
TATGGATATG TCTCCAGATA TTCTCATGC TATTTGGGGA TTTAATGGGA CAGAACGCCC	12480
AGGAGCTGTC TATCTTGAG CTGTACTAGC TTCACATGCT CAAAAAGGGA TTCCAGCCTT	12540
TGGGATTTAT GGAAGAGATG TTCAGGAAGC TAGTGACACA GATATTCAG AAGATGTCAA	12600

650

AGAAAACTT TTACGCTATG CGCGTGCAGC TCTTGCAACT GGCTTGATGA GAGACACTGC	12660
TTACCTATCA ATGGGTAGTG TTTCGATGGG GATTGGTGGT TCTATTGTAA ATCCGGATTT	12720
CTTCCAAGAA TACTTAGGAA TGCGAAATGA ATCGGTAGAT ATGACGGAGT TCACGCGCCG	12780
TATGGACCGT GGTATTTACG ACCCTGAAGA GTTCGAACGT GCGCTCAAAT GGGTGAAGA	12840
AAACGTAAAA GAAGGATTCG ACCATAACCG TGAAGACCTT GTTTTAAGCC GTGAAGAAAA	12900
AGATAGACAA TGGGAATTTG TTATTAAGAT GTTCATGATT GGACGTGACT TAATGGTTGG	12960
TAACCCAAGA CTTGCTGAAC TTGGTTTGA GGAAGAAGCG GTTGGTCACC ATGCTTTAGT	13020
AGCTGGTTTC CAAGGTCAAC GTCAGTGGAC AGACCATTTT CCAAATGGGG ACTTTATGGA	13080
AACTTTCCTC AATACTCAGT TTGACTGGAA TGGTATTCGA AAACCATTTG TATTTGCGAC	13140
AGAGAATGAT TCACATAATG GTGTGTCTAT GCTCTTTAAT TATCTATTAA CAAATACTCC	13200
ACAAATCTTT GCTGATGTGC GTACTTATTG GAGCCCAGAG GCTGTAAAC GTGTAACGGG	13260
ACATACTTTA GAGGGTCGTG CTGCAGCTGG CTTCTTACAT CTAATCAACT CTGGTTCTTG	13320
TACATTGGAT GGTACAGGTC AAGCTACTCG AGATGGCAAA CCTATTATGA AACCATTCTG	13380
GGAGTTGGAA GAAAGTGAAG TGCAGGCTAT GCTTGAAAAT ACAGACTTCC CACCAGCAAA	13440
CCGCGAATAC TTCCGTGGAG GAGGATTCTC AACTCGTTTC TTGACGAAGG GGGATATGCC	13500
AGTAACAATG GTACGTCTCA ATCTTCTAAA AGGGGTGGT CCAGTGCTAC AAATTGCAGA	13560
AGGTACACA CTTGAACCTC CTGAAGATGT TCACCATACT TTAGATAATC GTACAGATCC	13620
AGGATGGCCA ACTACTTGGT TTGCTCCACG TTTGACAGGA AAAGGTGCTT TCAAGTCTGT	13680
CTATGACGTC ATGAATAAT TGGGAGCTAA TCACGGAGCC ATAACATATG GACACATTGG	13740
AGCAGACTTG ATTACCTTGG CTTCTATGTT GAGAATTCC TCAATATGC ATAATGTACC	13800
TGAGGAAGAT ATCTTTAGAC CTAAAAATTG GTCCTTATTT GGAACAGAAG ATCTAGAATC	13860
AGCAGACTAT CGTGCATGTC AGTTGTTGGG GCCACTACAT AAATAAACT TGTTTATATA	13920
GGAGGTGAAC TTACGTCCCT CCTATCCTTT TAAAAAGATT TGTAAACAA TTCACAAATA	13980
ATTGAAAACG AATACAAAAA GTAATATAAT GATGTAAAT AGATAGCGCG GAGGCGCAGG	14040
AGGAAAATTA TATGGCTATA TTTTATGTTC CGGCAGTCAA CCTTATTGGA AAAGGTGTTG	14100
TAAATGAAGT GGGTCCTTAT ATCAAGGAAC TTGGCTATAA AAAGGCACTT TTGGTGACAG	14160
ATAAGTACAT CGAAGGCAGT GATATTTTAC CTAAGACTTT AAAACCACTG GATACAGAAG	14220
GAATCGAATA T	14231

(2) INFORMATION FOR SEQ ID NO: 82:

(i) SEQUENCE CHARACTERISTICS:

651

(A) LENGTH: 16995 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

AGTTCCTCTTA ACTTTTTTAG GATGGCATTC TCCGCTCTCA GGTACTCATT TTCTGCTgAA	60
GACGTTCTAA TTCTGTCCTC TCTTCAGGTC TCGTTTTTGG CTTACGTCCC ATTTTAGGTA	120
CTCTCCCCTCT TGTTTTCTCA ACAATAGTAT ACCCGTTTTT CCTGTATTGT GCTAGCCAGT	180
TAAGAAGTAT CGTACGACTT GGGAGACCGT ATTCAAGAGA AACTCTATCT TTAGTCCAGC	240
CTTCATGTCA GACTTTATTA CTCATTTCTT GTTTTAAATC AGGAGAATAG TAACGATTTT	300
TTCCTTTTTT GACGAACCTCT ATTCGTAAC GATCAATCAA TTAAATCATG TACCTAATAT	360
TAGAATTGCT TATCCCAAAT TTATTTGAAA GCTTCTCTAA GCTATATCCT TGTTTTCTAA	420
GTTTCATAGAT CTGAACCTTA TCATCATAAG TTAGTTTCAT AATAAAAACA CCCCCAAAGT	480
TAGATTTTTT CTGTCTAACT TTTGGGGTGT AGTTCATGTA CACCTGATAT GATGCGTTTT	540
ATAATTTTTA AGCCTTTTTG CCCAGCCTCG TCAAAAGTAA TGTTTTGACA CAAAATCTGT	600
GACAAAACCT TAGTTTTAAA GGTTTTTAAC TTTGTATATA CTAGTTTTAA GAAAAGGAGG	660
ATGATCTAAT GGAAGAAAAA GTATCATTGA AAGTCAGGGT TCAAAAAC TA GGGACATCGC	720
TTTCAAATAT GGTTATGCCC AATATTGGAG CATTTATTGC TTGGGGAGTA TTGACTGCCC	780
TCTTTATCGC TGATGGCTAT CTGCCAAATG AACAGTTAGC TACTGTTGTT GGTCTATGT	840
TAACGTATTT ATTGCCAATC CTGATTGGTT ACACAGGTGG ATATATGATC CATGGCCAAC	900
GTGGTGCCGT TGTAGGAGCT ATTGCTACTG TTGGTGCAAT CACAGGTTCT AGTGTTCCCTA	960
TGTTTATCGG AGCTATGGTA ATGGGCCAC TGGGAGGATG GACTATCAAG AAATTTGATG	1020
AGAAGTTCCA GGAAAAAATT CGTCCCGGAT TTGAAATGTT AGTTAATAAC TTCTCAGCTG	1080
GTCTCGTTGG TTTTGCAATTA TTGCTTTTGG CTTTCTACGC AATCGGTCCA GTCGTATCGA	1140
CTCTTACTGG AGCTGTTGGG AATGGTGTG AGGCTATTGT CAATGCTCGC CTCCTTCCTA	1200
TGGCTAATAT TATCATCGAA CCGGCTAAAG TCCTTTTCCT CAATAATGCC CTCAATCATG	1260
GCATTTTTAC TCCTCTGGGA GTAGAACAGG TAGCTCAAGC TGGTAAGTCA ATTCTCTTCC	1320
TATTGGAAGC TAATCCTGGA CCAGGTCTGG GAATTCATT AGCTTATGCT GTATTGCGTA	1380
AAGGTTCTGC TAAATCTTCT TCTTGGGGGG CAATGGTTAT TCATTTCTTC GGAGGGATTC	1440
ATGAAATTTA CTTTCCTTAT GTTATGATGA AGCCTACTCT ATTTTtagCT GCTATGGCAG	1500

652

GAGGTATCTC	TGGAACCTTT	ACTTTTCAAC	TCTTAGACGC	TGGTCTTAAA	TCTCCAGCTT	1560
CACCAGGTTT	TATTATTGCG	ATTATAGCTA	CGGCGCCAAA	AGGTGTTTGG	CCCCATCTAA	1620
ATGTTCTTTT	AGGTGTTTTA	GTGGCAGCAG	TTGTTTCTTT	CCTTGTAGCA	GCCCTTATTC	1680
TTCATGCAGA	CAAGTCAACT	GAGGATTTCG	TCGAAGCTGC	TCAGGCGGCT	ACCCAAGCAG	1740
CTAAGGCTCA	GTCTAAAGGT	CAGTTAGTAT	CAACTTCTGT	TGATGCAGTT	GTTTCGACAG	1800
ACTCAGTGGA	AAAAATCATT	TTCGCCTGCG	ATGCTGGTAT	GGGAAGCTCT	GCTATGGGAG	1860
CTAGTATTCT	TCGAGATAAG	GTTAAAAAAG	CAGGTCTAGA	GATTCCAGTA	TCTAATCAGG	1920
CAATCTCAAA	TTTGCTTGAT	ACACCAAAAA	CATTAATTGT	TACTCAGGAA	GAAC TGACAC	1980
CAAGAGCTAA	AGACAAGAGT	CCAAGTGCTA	TTCATGTTTC	TGTTGATAAT	TTCTTAGCGT	2040
CCTCTCGTTA	TGATGAAATT	G TAGCTTCAT	TAACAGGAGC	TTCTCCAATA	GCAGAAATTG	2100
AAGGAGATAT	ACCAACTTCA	GCACCAGTAG	ATAGTCAGGA	AAGTGACCTT	AACCATATTG	2160
ATGCTGTAGT	AGTTGCTTAT	GGTAAAGCAC	AGGGAAGTGC	AACTATGGGC	TGTGAAACGA	2220
TTGGGCTAT	TTT TAGAAAC	AAGAATATTC	GTATTCCAGT	TTCTACTGCC	AAAATTT CAG	2280
AATTAGGTGA	ATTTAATTCT	AAAAACATAA	TGATTGTAAC	AACTATTTCT	TTACAGGCAG	2340
AAGTGCAGCA	AGCAGCACCG	AATTCTCAAT	TTCTTATTGT	GGATAGTTTA	GTAACAACAC	2400
CAGAAATATGA	CAAAATGGCT	GCTAGAATGT	ACAAATAGAA	CTAGAGGTTT	CTAAATTACG	2460
AATGCTATTA	ACCAAACGAG	AAGAACAATT	ATTGAAGGCT	TTCTTACATG	TAGGGAAGCT	2520
TTCAATGCAA	GATATGACTG	AAATCTTACA	GGTTTCATCT	AGAACAATTT	ATCGAACTTT	2580
ATCAGATTTG	ACAGATAGCA	TGGAGCAATA	TGGAATCGAA	ATAACGAAGC	ATGGGAAATA	2640
CTATATTTTG	ACTGGAGAGT	TGGATGATTT	GCCGACAGAA	CTTGAAGTGT	TAGTTGAGTA	2700
TAGTCCCCAA	GAAAGACAAG	AGTTGATTAC	CTATCGCCTT	CTGACTGAGA	GTGGTTTTGT	2760
CACCAATGAA	GCATTGCAAG	AGTGCACGAA	AGTCAGTAAT	GTAAC TATTA	TTCAGGATAT	2820
TTCAGATATT	GATAAGCGTC	TTTTAGACTT	TGATCTGAAA	ATTGAACGAC	AAAAAGGTTA	2880
TCGGATTTCT	GGTGATT CAG	TTGGTAAGAG	AAGATTTT TG	GCTATTTTAC	TGACAAACTG	2940
TATCTCAGTA	GCAGATTTTT	CAACCGGTAA	TTTTGGGAGC	TTTGATATTT	TAGAAGCAGA	3000
TAGAACTGGG	CTGGCCAGTC	AGATTGTTAA	TAAGCAACTG	TCAGGTTTT C	CAGATATGGA	3060
TGCTAGGATG	AAGATGTTTT	TTGCGATCTT	GTTATCTCTT	ATAGGTCAGG	AGCAAAACAT	3120
TGAAAATTCA	CCTAATACTA	GTAAGCAGGC	TTTGGA AATT	TCTCAAAAAA	TTTTTCAAGC	3180
TTACTCTAAG	CAGACTGCAC	AATTTTATAG	TATTCAGGAA	ATTATCTATT	TTGCGAGCAT	3240
CTTGATGAA	TTAATCATTA	AACGTCAGGA	CAATCCGCTC	TTTACGGAGA	AATTTGATGG	3300

653

TGAATTTTTC	TACAATATTT	CAAATCTGAT	TGATACGGTT	TCCATGTATA	CCAAGATTGA	3360
CTTTTTTAAG	GACAAGGTTT	TATTTCAATTT	TCTTTTCCAT	CATATTCGGC	TCAGTTTAGG	3420
CGTCCCTATC	CTTTTTCAGG	GTGAAAATTT	GCCAGAACTCT	ATCCAGATTT	TAGTTGAAAG	3480
GAATAAATTT	CTTTATACAG	TCATCAGTCT	TTTAGTGAAT	GATATTTTTC	CGAAATATCT	3540
TCATACAGAG	TATGAGTATG	GCATGATTGC	CCTACATTTT	ATCTCTAGCT	TAGGCCGTAG	3600
TCCAGAGATT	TATCCAGTCC	GTGTTTGTCT	TTTAACGGAT	GAACGTCGGG	TCACTAGAGA	3660
TTTATTAGTC	AGTAAAATTA	AGAGTGTTGC	TCCTTTTGTA	GAGTTGATAG	ATATTCAATC	3720
TCTAGTAGAT	TACCACAGTA	TTGATCTCAG	TCAGTATGAT	TATATTTTAT	CTACCAAGCC	3780
GCTGACTAAT	CAGGAAATCG	ATGTAATTTT	TAGTTTTCCT	ACCGTCAAAG	AATTGCTTGA	3840
ATTACAGGAA	CGACTTCAGT	ATGTACAGGC	ACATCGTACA	ATTGTCGCGC	GTGATGCTAT	3900
CGCTCCAGAG	AAAAGTTATG	ACTTGCAAGA	TTATTTAATA	TCTAGTAGTC	AGCTTTTGAG	3960
TCAATTCGAG	TTGGTTCAAT	TGGAGAATAA	TCAATCATTT	GAGCACACGG	TAGAACAAAT	4020
CATCCAATAT	CAGAAGAATG	TGAGTGACAG	AGCTTACCTA	ACAAGAAAAT	TGTTATCTCA	4080
CTTCCAGAAT	AGTCCTATGG	CTATTCCTAA	TACTGGTCTG	GTGCTTTTAC	ATAGTCAGTC	4140
TAGCAAAGTA	ACAACAAATA	GTTTTACTAT	GTTTGAAGTC	AACTACCTA	TCTCCGCATT	4200
GTCAATGAAA	CGAGAGGAAG	AAGAGGTCAA	AAGGTGTCTG	CTAATGCTAA	TGTCTAAAGA	4260
AGCTAGCGAG	GAAGCTAGAG	ATTTAATGAC	AGCTATTAGT	CAGTCGATTA	TTGAAAATCA	4320
TCTTTATACA	GAGATTTACA	AGACGGGAAA	TCAATCCATT	ATTTATCAGA	TGCTAAATAC	4380
TATTTTTAAC	GAAAAAATTA	AGAAATTGGA	GAACAAATAT	GAACTTGAA	AAACATTTGA	4440
TTAAGCTTAA	TAAACAATTT	TCTAACAAGG	AGGAAGCTAT	TTGTTATTGT	GGGCAAGTTC	4500
TTTATGAGGG	TGGATATGTT	AATGAAGACT	ATATTGAAGC	CATGATTGAG	CGAGATAAAG	4560
AGCTATCTGT	TTACATGGGT	AACTTTATCG	CCATACCGCA	TGGAACAGAT	GCAGCAAAAA	4620
ATGATGTCCT	CAAGTCTGGT	ATTACAGTCG	TTCAAGTCCC	TAGAGGGGTT	GATTTTGGGA	4680
ATGTATCTAA	CCCTCAAGTG	GCAACGGTTC	TTTTTGGTAT	TGCTGGTATT	GGTAATGAAC	4740
ACTTAGAAAT	TATTCAGAAA	ATTTCTATCT	TCTGTGCAGA	TGTAGATAAT	GTTCTTAAAC	4800
TAGCAGATGC	TCAGTCAAAA	GAGGAAGTAT	TGCGCTTATT	TGATGCTGTT	GAATAATTGA	4860
ATTTAGTCAT	TTGTCATCTA	GTATATATGT	CCCTCAAATA	GGAAAAGGAG	AAATTGAATG	4920
AAACATTTCTG	TTCATTTTGG	TGCCGGTAAT	ATCGGTCGTG	GTTTTATAGG	TGAAATTTCTA	4980
TTTAAAAATG	GTTTCCATAT	TGATTTTGTG	GATGTCAATA	ATCAGATAAT	TCATGCTCTG	5040

654

AATGAAAAGG	GCAAGTATGA	AATTGAAATT	GCACAGAAAG	GACAGTCTCG	TATAGAAGTA	5100
ACTAATGTGG	CTGGCATTAA	TAGCAAAGAA	CATCCTGAGC	AAGTCATTGA	AGCGATTCAA	5160
AAGACGGATA	TTATTACTAC	TGCAATCGGA	CCTAATATAC	TCCCTTTTAT	CGCCGAACCT	5220
CTAGCCAAAG	GAATCGAAGC	TCGCCGAGTT	GCAGGAAATA	CACAGGCATT	GGATGTTATG	5280
GCCTGTGAAA	ATATGATTGG	CGGGTCTCAA	TTTCTTTATC	AAGAAGTCAA	GAAATATTTA	5340
AGTCCGGAAG	GTTTGACATT	TGCTGATAAC	TACATAGGTT	TTCCAAATGC	TGCAGTAGAC	5400
AGGATTGTTT	CAGCACAAAG	TCACGAAGAT	TCCCTTTTTG	TTGTGGTCGA	GCCCTTTAAT	5460
GAATGGGTCG	TGGAAACCAA	GCGTCTTAAA	AATCCAGATT	TACGTCTAAA	AGATGTGCAT	5520
TATGAAGAAG	ATTTAGAACC	CTTTATTGAG	CGAAAACTTT	TTTCAGTCAA	TTCTGGACAT	5580
GCAACTTCAG	CTTACATTGG	TGCGCATTAT	GGTGCCAAGA	CAATTTTGGA	AGCTCTTCAA	5640
AATCCTAATA	TTAAATCTCG	GATTGAATCT	GTATTAGCTG	AAATTCGGAG	TCTCTTGATT	5700
GCCAAATGGA	ACTTTGATAA	AAAAGAATTG	GAGAATTATC	ACAAAGTCAT	TATAGAACGA	5760
CTTGAAAACC	CTTTCATAGT	GGACGAGGTT	AGTCGCGTAG	CTCGTACTCC	AATCCGAAAA	5820
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TATAAAAACC	TACTTAAAC	AGTTGGCTAT	GTCTTTGACT	ATCGCGATGT	AAATGATGAA	5940
GAAAGTATTC	GATTAGGTGA	ATTGTTGGCT	AAACAATCAG	TCAAAGATGT	TGTTATACAA	6000
GTTCAGGTT	TAGACGACCA	AGAATTGATT	GAGCAAATTG	TAGAGTATAT	TTAATCTTTT	6060
TCGAAAATCT	CTTCAAATCA	GGTTAGCATC	GCTTTGTCTT	AGGCATATGT	TGTTCTATCT	6120
ACAACTCAA	AGCAGTGCTT	TGAGCTGACT	CCGTCAGTCT	TATCTGCAAT	CTCAAAACAC	6180
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GGTAAAAGAA	GCTGGACAAA	AAGTCTTCAA	AATCGGGAAA	AGGCAGCCTA	TCGGGTGTTT	6300
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GAGTTTTTGA	TCAGCTTTAT	GAGATAGGTC	TTGCTAGAGA	TGTAGCCCAT	CATGTTATTT	6420
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GAAGTAGAGG	TGTACTATTC	TAGTTTCAAT	CTACTATATA	ACTGAAAAAT	TAGATAAATT	6660
AGTTTGGGAA	AATGACTAAC	CAAAAGATAT	CCAAAGTAGT	CTAAAATTGT	CTATACTTTA	6720
TGAGTGTTTT	AGTTAGGAAA	AAGGCTTGTT	GTCTATAAAT	GTCTGCATTA	GTCTAGATTT	6780
TATTTATAGA	AAATGTTATA	ATAGACTGTA	TTTAAAAAAT	TTTAAGGAGA	AATGACAGAA	6840

655

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ACAAAAACCT	TGAAGTATCA	GTTGATGTAG	AAAAAGAAGT	AACTGACGCT	GATGTCGAAG	7260
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AAGACCAATT	GGTAGGTCAC	TCAGCTGGCG	AAACCGTTGA	TGTTATCGTA	ACATTCCCAG	7500
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CAAGCACAGC	AACAGTAAAA	TAATCTTAAT	AAACAGAAAA	CCCACCTGAA	TTGGTGGGTT	8160
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GTAATTCGCC	TAGTAAGATG	AGTTTGCTTT	TGGCACGTGT	AATGGCTGTG	TAGATGAGAT	8460
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656

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CAGCATCGTT	AACCAAATGA	ATGACCCTGT	CTCTCTTACG	ATAGTGACAC	TGAGGAGCTT	8760
CAAACTGAG	TTGATCTTTT	TGTGGGGGAT	TGAGCAGGTC	TTGCATGAGC	TGATTGATAG	8820
CATCAATCCC	TGCCGTCCCT	CGGTACATAG	GAGCCAGAAC	TTGGATATCA	CGGGCGGGAA	8880
TACCATTTCT	GAGGGCGGCA	CCTAAGATTT	TTTCAATGGT	GGCAGGAATA	TGGCCACTAG	8940
CAATTTCAAA	GTAGGAACGG	TCAGCTTTTT	TTTGGGTGAA	ATCAGCTGGC	AAGATGCCCT	9000
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CCAAGCGAGT	CTGAGGAATC	AAAGGAATAT	GAAGTAGATC	CGCTAGAACC	TGTCCAGGAC	9120
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TGGAGAAGAG	TTGATTGGCC	AGCCAAGTAT	CTACCATAGA	GAATTCATCC	ACGATGATAA	9240
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GGCGATGTAT	GGTCGCGCTA	GGCAAACCTG	TCAATTCATT	CATGCGACGA	GCAGCTCGAC	9360
CAGTTGGAGC	AGCAAGAAGA	ATGGGCAGAT	TGCTTTTCTT	CCTGAAGTCA	AGTCCTTCTA	9420
AAAGGGCATA	AACAGCAATG	ATTCCATTGA	TAACAGTTGT	CTTACCAGTA	CCAGGCCAC	9480
CTGTCAGGAT	AAAGACCTTA	TTCTGGATAG	CATCACAGAT	AGCCTGT TTT	TGAATGTTAT	9540
CATACTCAAT	TCCCAGTTCT	TGCTCGACAG	TAGTGATATG	TTTTTTGAATG	GTTTCTAAAT	9600
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CAGCGAAAAA	GAGGCTGTTG	TCAAAGATCT	TGGTATCAAT	CTGCTGAACC	TTGTCTTCTT	9720
CGATCAGGTA	GGAGAGCTCT	TGGGCAACTT	GGCTGGGGTC	TAGTTCCACG	GGACGGGAAG	9780
ACTCAAGGAG	AGTAAGGGTT	TGTTCCAGCA	AATCCCGTGC	TTCAACATAG	GTGTCCCCTG	9840
TTTCCATACA	GGCCTGAAAA	AGACTGTGAA	CTAGACCGGC	GCGGAAGCGT	TCAGGAGCCT	9900
GACTTTCGAT	GCCTAGTTCC	TCAGCTAGTT	GGTCAGCAAT	GGTAAAGCCC	AAACCCCTGA	9960
TATCCTCAAC	CAGCTGGTAG	GGATAATTTT	CAACCACATC	AAGGGTTTCT	TCCTTGTA AA	10020
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TCATCTCCGT	TCCGTAGTTG	AGACGGAGAG	TGGAGACGAA	AGCCTCGCGA	TTTTTGGCAG	10140
AGAGTCCTGC	GATGCCTTCT	AACTTTTCTG	GGTGTGCAA	AATTCGTCA	ATGGTATTTT	10200
CGCCATAGGT	ATCCACGATT	TTCTGAGCTG	TCTTGAGACC	AATCCCCTTG	AAATGGCTAC	10260
TTGAAAAGTA	CTTGACCAAG	CCCTTACTAG	TTGGTTTTGC	GCGATCATAA	CGACTGATTT	10320
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657

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TAATCCGTTC AATAGTTCCT GAAAAATAAA CTTCCATAAA ATTCCTTTGC ATGAATAGGT	10560
GAGAGTTGGG ATTGTTTTTA TTTTATACTC TTCGAAAATA TCTTCAAACC ACGTCAGCTT	10620
CCATCTGCAA CCTCAAAACA GTATTTTGAG CTGACTTCGT CAGTTCTATC CACAACCTCA	10680
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CACAATTTTC TCAGGCTGAA CACCTTTTTC AAGGAGGAGA TAGATAGCCT GATTATGGAG	11820
GGCAACCTTA ACCGAAACAG CGTTGTAGCG GTCTCCGATG ACCTCGTTGT ACTTGCTGGG	11880
TGAGAGAAGG AGTGCCTGGT GCTGAATTTT TTCCTTGAGA ATAGGAGTAA TCTGACGGAT	11940
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GTCAGGTGTG ACAAAGGCAG CCACAACGTC AAGCCCACCA AAGTAGGAAC CATTTCCAC	12060
CTCATCTGTC CCAATTAAAG GAAGATTTTG TCCGCTGGTT TGCTCTACAG CTTGATAGCC	12120

658

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AGCCGACTG	GTTTGATAGT	GTTCAAGAAA	AGCCTGAATA	TCCTTTTCGC	TTGGTGTGAG	12300
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659

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660

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TATCTTAGGA ACTCTTACAG TTATTTTCTT TAATATCGGA AAAATCCCTG GCACAATCGC	16740
TTTAGTCTTT ACCTCAGCTT TTAGTCCCTT TGCTGCGGTA GGTGGATTG CTGGTGCTAG	16800
CGTTCGGATG GCTATTCAAA ATGGTGTGGC GCGTGGTGTG TTCTCAAACG AATCTGGTCT	16860
GGGTCTGCT CCTATTGCAG CTGCAGCTGC CAAGACAAAT GAACCAGTAG AGCAAGGTTT	16920
GATTTCCATG ACAGGAACCT TTATTGATAC CCTCATCATT TGTA CTCTAA CTGGTTTGAC	16980
CATCTTGGTA ACTGG	16995

(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28473 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

CCGGGGCTTT TGTAGTATAA TAGAGATACG TTTTGAAAGT AGGAGGTATC TATGGACTTA	60
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661

ACTAAGCGCT	TTAATAAACA	GTTAGATAAA	ATTCAAGTTT	CGTTGATTCTG	TCAGTTTGAC	120
CAGGCTATTT	CGGAGATTCC	TGGGGTCTTG	CGTTTGACCT	TGGGGGAACC	TGATTTTACA	180
ACGCCAGACC	ATGTCAAGGA	GGCGGGCAAG	CGAGCGATTG	ATCAGAACCA	ATCCTACTAT	240
ACAGGGATGA	GTGGTCTGCT	GACTCTACGT	CAGGCAGCCA	GTGACTTTGT	TAAGGAAAAG	300
TACCAACTGG	ACTATGCTCC	TGAAAATGAA	ATCTTGGTTA	CAATTGGGGC	GACAGAGGCT	360
TTATCTGCGA	CTTTGACGGC	TATTTTGGA	GAGGGAGACA	AGGTACTTTT	GCCAGCTCCT	420
GCTTATCCAG	GCTATGAACC	GATTGTTAAC	TTAGTTGGGG	CAGAAATGT	TGAGATTGAT	480
ACGACTGAAA	ATGGTTTTGT	CTTGACTCCT	GAGATGTTGG	AGAAGGCCAT	TTTGGAGCAG	540
GGTGATAAGC	TCAAGGCGGT	TATTCTCAAC	TATCCAGCCA	ATCCGACAGG	AATTACCTAC	600
AGTCGAGAGC	AGTTAGAGGC	CTTGGCAGCT	GTTTTACGCA	AGTACGAAAT	TTTTGTTGTC	660
TGTGATGAGG	TTTACTCAGA	ATTGACCTAC	ACAGGCGAAG	CCATGTGTCT	CTAGGAACGA	720
TGTTGAGAGA	CCAGGCTATT	ATTATCAATG	GTTTGTCTAA	ATCGCATGCC	ATGACAGGTT	780
GGCGTTTGGG	GCTGATTTTC	GCTCCTGCGA	CCTTCACAGC	CCAGTTAATC	AAGAGTCACC	840
AGTACTTGGT	CACTGCCGCA	AATACCATGG	CGCAACATGC	TGCGGTAGAA	GCCTTGACGG	900
CTGGTAAAAA	CGATGCGGAC	CCATGAAGAA	GGAATATATC	CAACGTCGGG	ACTATATCAT	960
CGAAAAAATG	ACTGCTCTTG	GTTTTGAGAT	TATCAAACCA	GACGGTGCCT	TCTATATTTT	1020
TGCTAAAATT	CCAGCGGGCT	ACAATCAAGA	CTCCTTTGCT	TTTCTGAAGG	ATTTTGCTCA	1080
GAAGAAGGCC	GTTGCCTTTA	TCCCTGGTGC	AGCCTTTGGA	CGTTACGGGG	AAGGCTACGT	1140
CCGCCTATCT	TATGCAGCCA	GCATGGAGAC	TATCAAAGAA	GCCATGAAAC	GACTTGAGGA	1200
GTACATGAGA	GAAGCATGAT	TCAGTCTATC	ACGAGTCAAG	GCTTGGTGCT	TTACAATCGC	1260
AATTTTCGTG	AGGATGACAA	GCTCGTCAAA	ATTTTACAG	AGCAGGTTGG	CAAACGCATG	1320
TTTTTTGTCA	AACACGCTGG	TCAGTCTAAG	CTGGCGCCTG	TTATTCAGCC	CTTGGTGCTG	1380
GCACGATTTT	TCTTGCGAAT	CAATGATGAC	GGACTCAGTT	ACATCGAAGA	CTATCATGAG	1440
GTCATGACTT	TTCCCAAGAT	TAATAGTGAC	CTCTTTGTCA	TGGCCTATGC	GACCTATGTG	1500
GCAGCTCTTG	CAGATGCTAG	TTTGCAGGAC	AATCAGCAGG	ATGCTCCCTT	GTTTGCTTTT	1560
TTGCAAAAGA	CTTTGGAGTT	GATGGAAGCA	GGCTTGGATT	ATCAGGTTTT	GACCAATATT	1620
TTTGAAATTC	AAATTTTGAC	TCGATTTGGA	ATCAGCCTCA	ATTTTAATGA	GTGTGTCTTC	1680
TGCCATCGGG	TTGGTCAGGC	TTTTGACTTT	TCTTTCAAAT	ATGGAGCCTG	CCTCTGTCCA	1740
GAGCATTATC	ATGAGGATAA	GAGACGTTGT	CATCTCAATC	CCAATATCCC	CTATCTGCTC	1800

662

AATCAATTTC	AAGCTATTGA	TTTTGAGACT	TTGGAGACCA	TTTCGCTCAA	GCCTGGAATC	1860
AAGCAAGAGC	TACGCCAATT	TATGGATCAA	TTATATGAAG	AGTACGTTGG	GATTCACCTA	1920
AAATCAAAGA	AATTTATTGA	TTCCCTAGCA	GACTGGGGAC	AATTACTAAA	AGAGGAAAAG	1980
AAATGAAAAA	AATCGCAGTA	GATGCCATGG	GGGGCGATTA	CGCACCTCAG	GCCATTGTTG	2040
AGGGTGTCAA	TCAAGCCCTA	TCTGACTTTT	CAGATATCGA	GGTTCAACTT	TACGGAGATG	2100
AAGCTAAAAT	CAAGCAATAT	CTGACAGCGA	CAGAGCGCGT	CAGCATTATC	CATACGGATG	2160
AGAAGATTGA	TTCGGATGAT	GAACCTACGA	GAGCTATTTC	GAATAAGAAA	AATGCCAGTA	2220
TGGTATTGGC	AGCCAAGGCT	GTCAAAGATG	GTGAAGCAGA	CGCTGTCCCT	TCGGCTGGGA	2280
ATACAGGTGC	CTTGTTGGCA	GCAGGATTCT	TCATCGTGGG	TCGTATCAAG	AATATCGACC	2340
GTCTGGACT	CATGTCTACC	TTGCCTACCG	TTGATGGAAG	AGGTTTGGAC	ATGCTAGACC	2400
TTGGTGCCAA	TGCAGAAAAT	ACAGCCCAGC	ACCTCCATCA	ATATGCGGTT	CTAGGTTCCCT	2460
TCTATGCTAA	AAATGTCCGT	GGCATTGCGC	AACCACGCGT	TGGTTTGCTC	AACAACGGAA	2520
CAGAGAGTAG	CAAGGGCGAC	CCGCTTCGTA	AGGAACTTA	TGAATTACTG	GCGGCTGATG	2580
AAAGTTTGAA	CTTTATCGGA	AACGTGGAAG	CGCGTGATTT	GATGAATGGC	GTTGCAGATG	2640
TTGTGTGGC	AGATGGTTTC	ACGGGAAACG	CTGTGCTCAA	ATCCATCGAA	GGGACAGCTA	2700
TGGGAATCAT	GGGCTTGCTC	AAGACAGCTA	TTACAGGTGG	TGGTCTTCGA	GCGAAACTAG	2760
GTGCCCTCCT	TCTCAAGGAC	AGCCTCAGTG	GTTTGAAAAA	ACAGCTCAAT	TATTTCAGATG	2820
TTGGTGAGC	GGTCTTGTTT	GGTGTTAAGG	CACCTGTTGT	CAAGACTCAT	GGCTCAAGCG	2880
ATGCCAAGGC	TGTTTATAGT	ACGATTCTGC	AGATCCGTAC	CATGCTAGAA	ACAGACGTGG	2940
TTGCCCAGAC	TGCGCGTGAA	TTTTCAGGAG	AATAAAAGAG	ATGACAGAAA	AAGAAATTTT	3000
TGACCGTATT	GTGACCATTA	TCCAAGAGCG	ACAGGGAGAG	GACTTTGTCTG	TGACAGAATC	3060
CTTGAGTCTG	AAAGACGATT	TGGATGCGGA	TTCTGTTGAC	TTGATGGAGT	TTATCTTGAC	3120
TCTGGAAGAT	GAATTTAGTA	TCGAAATCAG	CGATGAAGAA	ATTGACCAAC	TCCAAAACG	3180
AGGAGATGTG	GTTAAATCA	TTCAAGGAAA	ATAGCAATCG	GAGTTCCAAG	TCAACGGAAG	3240
TAGATGGTTT	TTAGAAATGA	GAAATATCGG	ACAAGCTGGT	AAAATCTTGG	CTGACAGTGG	3300
TTATCAAGGG	CTCATGAAGA	TATATCCTCA	AGCACAAACT	CCACGTAAAT	CCAGCAAACCT	3360
CAAGCCGCTA	ACAGTTGAAG	ATAAAGCCTG	TAATCATGCG	CTATCTAAGG	AGATAAGCAA	3420
GGTTGAGAAT	ATCTTTGCCA	AAGTAAAAAC	GTTTAAAAATG	TTTTCAACAA	CCTATCGAAA	3480
TCATCGTAAA	CGCTTCGGAT	TACGAATGAA	TTTGATTGCT	GGTATTATCA	ATCATGAACT	3540
AGGATTCTAG	TTTTGCAGGA	AGTCTAATAG	TAAAAAAGTG	ATTAGAAAAC	ATCTTTTTTA	3600

663

AAAATAGAGA	TGATTTTGAA	ACAAAAAGC	TAATTCAAGA	CGTTTCGATG	CCAATTCAAG	3660
ATTTGGATGA	AAAAAATTAA	TAGATACTGT	TATACTAAAC	TTGTCAAGTT	TGTAACAAGA	3720
CAAAATATTAA	AAATAAAAAA	GAGGTATTCG	TTATGAATAC	AAAAACGATG	TCACAATTTG	3780
AAATTATGGA	TACTGAGATG	CTTGCTTGCG	TTGAAGGTGG	CGGATGCAAT	TGGGGAGATT	3840
TTGCCAAAGC	AGGTGTTGGA	GGAGGAGCAG	CACGAGGTCT	TCAGCTAGGA	ATTAAAACAA	3900
GAACATGGCA	AGGTGCAGCA	ACTGGTGCTG	TGGGAGGAGC	TATACTTGGA	GGTGTGGCCT	3960
ATGCAGCGAC	ATGTTGGTGG	TAATTATGGA	TTTTAAAAAGT	TTTATTATTG	GTTTAGTAGT	4020
TGGTATATTT	GGTCCTTATA	TGGATGATTT	AATTAGAAAA	AAATTTTTTAA	AGTCTTCGGA	4080
GAAGAAAACA	GAAAAATCTG	TTAAAAAATA	ATCAAAACTA	TAAATGATGA	ATCTGAATCA	4140
AAATTATTTT	GCGCATGTAA	AGAGGAGTCT	TATAGTAACG	AGTCAAAAAA	GGAGTAACTA	4200
TGAATCGTAA	TTTAGAACGG	TGTTATCTAT	TCTGACTAGG	AATAGATCAT	ACCAGAGGTA	4260
GCTTAGAAAT	AGCAGAGACA	TTAGAAATTG	AAGTAATAAA	TAGGATGTCG	TAAGTGTTAC	4320
TATCAATGAT	TTATTTGTTT	CAAGCTTGCC	TAGGGTGACA	GTAAAAAATC	AATTTCCTTT	4380
CAATAGCATA	TTTTTAGTGG	GCAGGACTCT	TGTTCTGCCT	ATTTTTTTTAT	CCAAAAAGTG	4440
CAGTTGGGAG	GGAGATAGGC	TCATTTGGGA	AGGAAGTCCA	GTTTTTGTTT	AGTGATTGGG	4500
GTAAGATAGT	TGTTATCAGA	TGAGTTAATA	CTCTTCGAAA	ATCAAATTCA	AACCACGTCA	4560
ACGTCGCCTT	GCCGTATATA	TGTGACTGAC	TTCGTCAGTC	CTATCTACAA	CCTCAAAACA	4620
GTGTTTTGAG	CAGCCTACGG	CTAGTTTCCT	AGTTTGCTCT	TTGATTTTCA	TTGAGTATTA	4680
GGGAAAAGGA	GATGAATATG	AAATTTGGGA	AACGTCATTA	TCGTCCGCAG	GTGGATCAGA	4740
TGGACTGCGG	TGTAGCTTCA	TTAGCCATGG	TTTTTTGGCTA	CTATGGTAGT	TATTATTTTT	4800
TGGCTCACTT	GCGAGAATTG	GCTAAGACGA	CCATGGATGG	GACGACGGCT	TTGGGCTTGG	4860
TCAAGGTGGC	AGAGGAGATT	GGTTTTGAGA	CGCGAGCCAT	TAAGGCAGAT	ATGACGCTTT	4920
TTGACTTGCC	GGATTTAACT	TTTCCTTTTG	TTGCCCATGT	GCTTAAGGAA	GGGAAATTGC	4980
TCCACTACTA	TGTGGTGACT	GGGCAGGATA	AGGATAGCAT	TCATATTGCC	GATCCAGATC	5040
CCGGGGTGAA	GTTGACTAAA	CTGCCACGTG	AGCGTTTTGA	GGAAGAATGG	ACAGGAGTGA	5100
CTCTTTTTAT	GGCACCTAGT	CCAGACTATA	AGCCTCATAA	GGAACAAAAA	AATGGTCTGC	5160
TCTCTTTTAT	CCCTATATTA	GTGAAGCAGC	GTGGCTTGAT	TGCCAATATC	GTTTTGGCAA	5220
CACTCTTGGT	AACCGTGATT	AACATTGTGG	GTCTTATTA	TCTGCAGTCT	ATCATTGATA	5280
CCTATGTGCC	AGATCAGATG	CGTTCGACAC	TAGGGATTAT	TTCTATTGGG	CTAGTCATCG	5340

664

TCTACATCTT	CCAGCAAATC	TTGTCTTACG	CTCAGGAGTA	TCTCTTGCTT	GTTTTGGGGC	5400
AACGCTTGTC	GATTGACGTG	ATTTTGTCTT	ATATCAAGCA	TGTTTTTCAC	CTCCCTATGT	5460
CCTTCTTTGC	GACACGCAGG	ACAGGGGAGA	TCGTGTCTCG	TTTTACAGAT	GCTAACAGTA	5520
TCATCGATGC	GCTGGCTTCG	ACCATCCTTT	CGATTTTCCT	AGATGTGTCA	ACGGTTGTCA	5580
TTATTTCCCT	TGTCTATTTT	TCACAAAATA	CCAATCTCTT	TTTCATGACT	TTATTGGCGC	5640
TTCCCTATCTA	CACAGTGATT	ATCTTTGCCT	TTATGAAGCC	GTTTGAAAAG	ATGAATCGGG	5700
ATACCATGGA	AGCCAATGCG	GTTCTGTCTT	CTTCTATCAT	TGAGGACATC	AACGGTATTG	5760
AGACTATCAA	GTCCTTGACC	AGTGAAAGTC	AGCGTTACCA	AAAAATTGAC	AAGGAATTTG	5820
TGGATTATCT	GAAGAAATCC	TTTACCTATA	GTCGAGCAGA	GAGTCAGCAA	AAGGCTCTGA	5880
AAAAGGTTGC	CCATCTCTTG	CTTAATGTCG	GCATTCTCTG	GATGGGGGCT	GTTCTGGTCA	5940
TGGATGGCAA	GATGAGTTTG	GGGCAGTTGA	TTACCTATAA	TACCTTGCTG	GTTTACTTTA	6000
CTAATCCTTT	GAAAAATATC	ATCAATCTGC	AAACCAAGCT	TCAGACAGCG	CAGGTTGCCA	6060
ATAACCGTCT	AAATGAAGTG	TATCTAGTAG	CTTCTGAGTT	TGAGGAGAAG	AAAACAGTTG	6120
AGGATTTGAG	CTTGATGAAG	GGAGATATGA	CCTTCAAGCA	GGTTCATTAC	AAGTATGGCT	6180
ATGGTCGAGA	TGTCTTATCG	GATATCAATT	TAACCGTTCC	CCAAGGGTCT	AAGGTGGCTT	6240
TTGTGGGGAT	TTCAGGGTCA	GGTAAGACGA	CTTTGGCCAA	GATGATGGTT	AATTTTTTACG	6300
ACCCAAGTCA	AGGGGAGATT	AGTCTGGGTA	GTGTCAATCT	CAATCAGATT	GATAAAAAAG	6360
CCCTGCGCCA	GTACATCAAC	TATCTGTCTC	AACAGCCCTA	TGTCTTTAAC	GGAACGATTT	6420
TGGAGAATCT	TCTTTTGGGA	GCCAAGGAGG	GGACGACACA	GGAAGATATC	TTACGGGCGG	6480
TCGAATTGGC	AGAGATTCTGA	GAGGATATCG	AGCGCATGCC	ACTGAATTAC	CAGACAGAAT	6540
TGACTTCGGA	TGGGGCAGGG	ATTTACAGTG	GTCAACGTCA	GAGAATCGCT	TTGGCGCGTG	6600
CTCTCTTGAC	AGATGCGCCG	GTCTTGATTT	TGGATGAGGC	GACTAGCAGT	TTGGATATTT	6660
TGACAGAGAA	GCGGATTGTC	GATAATCTCA	TTGCTTTGGA	CAAGACCTTG	ATTTTCATTG	6720
CTCACCGCTT	GACTATTGCT	GAGCGGACAG	AGAAGGTAGT	TGTCTTGAT	CAGGGCAAGA	6780
TTGTCTGAAGA	AGGAAAGCAT	GCTGATTTGC	TTGCACAGGG	TGGCTTTTAC	GCCCATTTGG	6840
TCAATAGCTA	GAAAGAGGAG	AGGATGAAAC	CAGAATTTTT	AGAAAGTGCG	GAGTTTTATA	6900
ATCGTCGTTA	CCATAATTTT	TCCAGTAGTG	TGATTGTACC	CATGGCCCTT	CTGCTTGTGT	6960
TTTTACTTGG	CTTTGCAACT	GTTGCAGAGA	AGGAGATGAG	TTTGTCCACT	AGAGCTACTG	7020
TCGAACCTAG	TCGTATCCTT	GCAAATATCC	AGTCAACTAG	CAACAATCGT	ATTCTTGTCA	7080
ATCATTTGGA	AGAAAATAAG	CTGGTTAAGA	AGGGGGATCT	TTTGGTTCAA	TACCAAGAAG	7140

665

GGGCAGAGGG	TGTCCAAGCG	GAGTCCTATG	CCAGTCAGTT	GGACATGCTA	AAGGATCAAA	7200
AAAAGCAATT	GGAGTATCTG	CAAAGAGGCC	TGCAAGAAGG	GGAGAACCAC	TTTCCAGAGG	7260
AGGATAAGTT	TGGCTACCAA	GCCACCTTTC	GCGACTACAT	CAGTCAAGCA	GGCAGTCTTA	7320
GGGCTAGTAC	ATCGCAACAA	AATGAGACCA	TCGCGTCCCA	GAATGCAGCA	GCTAGCCAAA	7380
CCCAAGCCGA	AATCGGCAAC	CTCATCAGTC	AAACAGAGGC	TAAAATTCGC	GATTACCAGA	7440
CAGCTAAGTC	AGCTATTGAA	ACAGGTGCTT	CCTTGGCCGG	TCAGAATCTA	GCCTACTCTC	7500
TTTACCAGTC	CTACAAGTCT	CAGGGCGAGG	AAAATCCCCA	AACTAAGGTT	CAGGCAGTTG	7560
CACAGGTTGA	AGCACAGATT	TCTCAGTTAG	AATCTAGTCT	TGCTACTTAC	CGTGTCCAGT	7620
ATGCAGGTTT	AGGTACCCAG	CAAGCCTATG	CGTCAGGGTT	AAGCAGTCAA	TTGGAATCCC	7680
TTAAATCCCA	ACACTTGCCA	AAGGTTGGTC	AGGAATTGAC	CCTTCTAGCC	CAGAAAATTT	7740
TGGAGGCAGA	GTCAGGTAAG	AAGGTACAGG	GAAATCTTTT	AGACAAGGGG	AAAGTTACGG	7800
CGAGTGAGGA	TGGGGTGCTT	CATCTTAATC	CTGAGACCAG	TGATTCTAGC	ATGGTTGCAG	7860
AAGGTGCCCT	ACTAGCCCAA	CTTTATCCAT	CTTTGGAAAG	AGAAGGGAAA	GCCAAACTCA	7920
CAGCTTATCT	AAGTTCAAAA	TATGTAGCAA	GAATCAAGGT	CGGTGATTCT	GTTTCGCTATA	7980
CTACGACTCA	TGATGCCGGG	AATCAACTTT	TCCTAGATTC	TACTATTACA	AGTATTGATG	8040
CGACAGCTAC	TAAGACTGAG	AAAGGGAATT	TCTTTAAAAAT	CGAGGCGGAG	ACTAATCTAA	8100
CTTCGGAGCA	GGCTGAAAAA	CTTAGGTACG	GGGTGGAAGG	CCGCTTGCAG	ATGATTACGG	8160
GCAAGAAAAG	TTACCTACGT	TATTATTGGA	ATCAATTTTT	GAACAAAGAG	TAATGTTTCGT	8220
GTTTTTAGAG	TTAAATAATT	TTTAAACTGT	GAGAAAGATT	CTTCTTGCAG	TTTTTTCTTT	8280
ACAATTTTGG	AAAAACATCT	ACTATTTATT	CGGTTAAATT	CTTGTGTTTT	TTGGTTTTTT	8340
GTGGTAAAT	GTGCTCAAGT	AATACGAAAG	GCGAACTTTA	AAATGTCAAA	ACAATTGATC	8400
TATTCGGGAA	AAGCTAAAGA	TATCTATACA	ACTGAGGATG	AAAATCTTAT	TATTTCAACT	8460
TACAAGGACC	AGGCGACTGC	TTTCAACGGT	GTCAAGAAGG	AGCAGATTGC	AGGTAAGGGA	8520
GTCTTGAATA	ATCAGATCTC	ATCTTTTATT	TTTGAGAAAT	TAAATGTGGC	TGGTGTGGCG	8580
ACTCACTTTG	TGGAGAAACT	TTCAGACACG	GAACAACTCA	ATAAAAAGGT	TAAGATTATT	8640
CCTTTGGAAG	TCGTGCTCCG	CAACTATACT	GCTGGTTCCT	TTTCAAAACG	TTTTGGTGTG	8700
GATGAGGGAA	TCGCCTTGGA	GACTCCGATT	GTCAATTTT	ACTACAAAAA	TGATGATTTG	8760
GATGATCCAT	TTATCAATGA	TGAGCATGTG	AAATTCCTAC	AGATTGCGGG	TGACCAGCAG	8820
ATTGCCTACT	TGAAGGAAGA	AACGCGTCGT	ATCAATGAAC	TATTGAAAGT	CTGGTTTGCT	8880

666

GAGATTGGGC TTAAATTGAT TGACTTTAAG CTAGAGTTCG GTTTTGACAA GGATGGCAAG	8940
ATTATCTTGG CAGACGAATT TTCACCAGAT AACTGCCGCT TGTGGGACGC TGATGGCAAC	9000
CACATGGATA AGGATGTTTT CCGTAGAGGA TTGGGAGAAC TAACCGACGT TTATGAGATT	9060
GTTTGGGAAA AGTTGCAGGA ATTGAAATAA TCTGTTTGCA ACGGAAAACC TTCGTCTCTC	9120
AACTAAAAGG ACTCAGGCTG AAAAGGTCCC CCAGACCTTT TCACTCTGTA GAGAACTAGG	9180
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TCAAGGCTGT TTGGGAATAT TGCAAGAGCT GAAATAAAGG AATAAGAATT GATGGATAAA	9300
CGTATTTTGT TTGAAAAAAA GGCTGATTTT CAGGTCAAGT CAGAGAGTTT GGTAGAGAG	9360
CTCCAGCACA ACTTGGGACT GTCAAGCTTG AAAAGTATTC GTATTGTGCA AGTATATGAT	9420
GTATTTGACT TGGCTGAGGA CTGTGTTGCA CCTGCAGAGA AGCACATTTT CTCTGAGCAG	9480
GTAACCGACC ATGTTTTAGA TGAAGTATCT GTGCAGGCGG ATCTTGCTAA CTATGCTTTC	9540
TTTGCCATTG AAAGTCTGCC AGGGCAGTTT GACCAGCGTG CAGCTTCGTC ACAGGAAGCC	9600
TTGCTTTTGT TGGGAAGTTC GAGTGACGTG ACAGTCAACA CAGCCCAACT TTACTTGGTG	9660
AATAAGATA TTGATGCGAC TGAGTTGGAA GCTGTCAAAA ACTACCTGCT CAATCCAGTT	9720
GATTCTCGTT TCAAGGATAT CACGACAGGG ATTGCCAAGC AGGAGTTTTC AGAGTCAGAC	9780
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CGTGCTAATG GACGATTGGA TGATATGGAA GTCTCTGACG AAATCAATGC CTGCTCAGTT	10200
GAAATTGAAG TGGACGTTGA TGGTGTCAAG GAACCTTGGC TCCTCATGTT TAAAAACGAA	10260
ACCCACAACC ATCCAACAGA AATTGAGCCA TTTGGTGGAG CGGCTACCTG TATTGGTGGA	10320
GCTATTCGTG ATCCGTGTC AGGCCGTTC TATGTTTACC AAGCCATGCG TATTTTCAGGT	10380
GCTGGTGATA TTACAGCACC GATTTTCGAA ACTCGCGCTG GGAAATTGCC ACAACAAGTC	10440
ATTTCTAAAA CAGCAGCTCA TGGTTATTCT TCATATGGTA ACCAGATTGG GCTTGCAACA	10500
ACCTACGTTT GTGAATACTT CCACCCAGGC TTTGTAGCTA AACGTATGGA ACTTGGTGCC	10560
GTTGTTGGTG CGACTCCCAA GGGCAATGTT GTCCGTGAAA AACCTGAAGC AGGTGATGTG	10620
ATCATCCTTC TCGGAGGCAA AACAGGTCGT GATGGTGTG GTGGTGCGAC GGGCTCTTCT	10680

667

AAGGTTCAAA	CAGTTGAGTC	TGTAGAGACT	GCTGGTGCTG	AGGTTCAAAA	AGGAAATGCC	10740
ATCGAAGAAC	GCAAGATTCA	GCGCCTCTTC	CGTAATGGCA	ATGTCACCTG	TCTGATCAAG	10800
AAGTCCAATG	ACTTTGGGGC	AGGCGGTGTC	TGTGTGGCTA	TCGGTGAATT	GGCAGACGGT	10860
CTTGAAATCG	ACCTCAACAA	GGTGCTCTT	AAATACCAGG	GCTTGAATGG	TACAGAAATT	10920
GCCATCTCTG	AATCACAAGA	ACGGATGGCG	GTCGTGGTTC	GTCTGAAGA	TGTGGATGCC	10980
TTCGTTGCCG	AATGTAACAA	AGAAAATATT	GATGCTGTTG	TGGTGGCGAC	AGTAACTGAA	11040
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CTTGACACCA	ATGGTGTGCG	CGTGGTTGTC	GATGCCAAAG	TTGTGGACAA	GGATGTCAAA	11160
CTCCCAGAAG	AGCGTCAAAC	ATCTGCTGAA	ACACTGGAAT	CAGATACCCCT	TACGGTTCTA	11220
TCTGACCTCA	ACCATGCAAG	TCAAAAAGGA	TTACAGACTA	TCTTTGACTG	CTCTGTTGGA	11280
CGCTCAACGG	TTAATCACCC	ACTTGGTGGT	CGTTACCAAC	TCACACCAAC	TGAGGCATCT	11340
GTGCAGAAAT	TGCCAGTTCA	ACACGGTGTG	ACTCATACTG	CGTCGGTCAT	TGCTCAAGGT	11400
TTCAACCCAT	ATGTAGCTGA	ATGGTCTCCA	TACCACGGTG	CTGCTTATGC	GGTTATCGAA	11460
GCAACTGCTC	GTTTGGTGGC	TGCTGGTGCC	AACTGGTTCA	AGGCTCGTTT	CTCTTACCAA	11520
GAGTATTTTCG	AGCGTATGGA	TAAACAAGCA	GAGCGTTTCG	GTGAGCCAGT	AGCTGCTCTT	11580
CTAGGTTCTA	TTGAAGCACA	AATTCAGCTT	GGCTTGCCAT	CTATCGGTGG	TAAGGACTCC	11640
ATGTCTGGTA	CCTTTGAAGA	ATTGACCGTT	CCGCCAACCT	TGGCTGCCTT	TGGGGTGACG	11700
ACGGCAGATA	GCCGTAAGGT	GCTCTCTCCA	GAATTTAAAG	CTGTTGGGGA	AAATATCTAC	11760
TACATCCCAG	GTCAAGCCCT	CTCTGCAGAG	ATTGATTTTG	ACTTGATTAA	GAAAAATTTT	11820
GCTCAGTTTG	AAGCCATCCA	AGCTGACCAT	AAAGTGACAT	CTGCATCAGC	TGTCAAATAC	11880
GGTGGTGTAG	TTGAAAGTTT	GGCTCTTGCT	ACCTTTGGAA	ACTATATTGG	TGCAGAGGTG	11940
ACCTTGCCCTG	AACTTGAAAC	AGCTTTGACA	GCTCAATTAG	GCGGCTTTGT	CTTCACATCT	12000
CCTGAAGAAA	TTGCTGGAGT	AGAGAAGGTT	GGACAAACGA	AAGCAGACTT	TACACTGACT	12060
GTCAACGGTG	TGAAGCTAGA	TGGACACAAG	CTTGACAGTG	CATTTCAAGG	GACATTGGAA	12120
GAAGTTTACC	CAACAGAATT	TACCCAAGCG	AAAGAAGTAG	AAGAAGTACC	AGCTGTGGCA	12180
TCAGATGTTG	TGATTAAAGC	CAAAGAAAAG	GTTGAAAAAC	CTGTGGTTTA	CATCCCAGTC	12240
TTTCCAGGAA	CCAACTCAGA	ATATGATTCA	GCTAAGGCCT	TCGAAAAAGA	AGGTGCAGAG	12300
GTCAATTTGG	TGCCATTTCG	GACCTTGAAT	GAAGAAGCTA	TTGTCAAGTC	AGTTGAAACT	12360
ATGGTTGACA	ATATCGACAA	GACTAATATT	CTCTTCTTTG	CTGGTGGATT	CTCGGCTGCG	12420

668

GATGAACCAG	ATGGTTCAGC	TAAGTTTATC	GTCAATATCC	TGCTTAATGA	AAAAGTGCCT	12480
GTGGCTATTG	ATAGCTTTAT	CGCCCGTGGT	GGTTTGATTA	TCGGTATTTC	TAATGGATTTC	12540
CAAGCCTTAG	TCAAATCGGG	TCTCCTACCC	TACGGAAACT	TTGAAGCTGC	TAACAGTACT	12600
AGCCCAACCC	TCTTCTACAA	TGATGCCAAC	CAACACGTGG	CCAAGATGGT	GGAAACTCGC	12660
ATTGCCAATA	CCAACTCACC	ATGGTTGGTT	GGTGTGCAAG	TGGGCGATAT	CCACGCTATT	12720
CCTGTTTCGC	ACGGTGAAGG	GAAGTTTGTC	GTGACGGCTG	AGGAATTTGC	AGAGCTCCGT	12780
GACAATGGAC	AAATTTTCAG	CCAATACGTT	GACTTTAACG	GTAAACCAAG	TATGGATTCT	12840
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GGCAATAAAG	ACCAACACCT	GTTCGCATCA	GCGGTAAAC	ATTTCACTGG	AAAATAAGAC	13020
TTACAGATTT	TCTAATAGAT	AGTATCAGTA	ATGTAAAAGT	CATGTAAATC	TAGCTCTTGA	13080
TGATTACAAA	TGAAAATTAG	GTATAAAAAA	TGACATACGA	AGTAAAATCT	CTTAATGAAG	13140
AATGTGGTGT	TTTCGGTATT	TGGGGACATC	CAGATGCTGC	TAAGTTGACC	TATTTTGGAC	13200
TCCACAGTCT	TCAACACCGT	GGTCAGGAGG	GGGCAGGAAT	CCTCTCCAAT	GATCAAGGAC	13260
AACTGAAGCG	CCATCGTGAC	ATGGGGCTTT	TATCAGAACT	TTTCAGAAAT	CCAGCTAATT	13320
TGGATAAATT	GACAGGAGCT	GGTGCATTG	GGCATGTGCG	TTATGCGACT	GCTGGCGAAG	13380
CTTCTGTAGA	TAACATCCAG	CCCTTCCTCT	TCCGTTTTCA	CGATATGCAG	TTTGGTTTGG	13440
CTCATAATGG	AAATCTGACC	AATGCAGCCT	CTCTCAAGAA	AGAACTGGAA	CAAAGAGGAG	13500
CAATTTTCAG	CGCGACTTCG	GACTCTGAAA	TCTTGGCTCA	CCTCATTCGT	CGCAGTCATA	13560
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ACGAGGGCAT	TCAGTATGAC	AGCTATACAG	ATGATACCCA	GTTGGCGGTT	TGTTCTATGG	13860
AGTATATCTA	CTTTGCTCGC	CCTGATTCTA	ATATCCACGG	TGTCAATGTC	CATACGGCAC	13920
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GTGTGCCCAA	TTCTTCCCTA	AGCGCGGCTA	TGGGATTTGC	GGAAGAATCA	GGCTTACCAA	14040
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AATTGCGGGA	GCAAGGAGTG	CGGATGAAAC	TGTCTGCTGT	TTCCGGTGTT	GTCAAAGGCA	14160
AACGTGTGGT	CATGGTGGAT	GATTCCATTG	TACGTGGAAC	AACCTCTCGT	CGTATCGTTC	14220

669

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GAGCGTGCAA	AGCAGCTCGG	CGTTCTGTCC	TATGCTTTTG	AACTCAAGGA	GTTTGAGAGC	15960

670

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GCTTGGAATG	CTGGCGTGGG	TCAGTCTGGT	GTGACCATTG	ACTGGGTGGA	TTCGGGTGTG	16200
GATACAGGCC	AGGTCATCAA	ACAGGTTCGT	GTGCCACGAC	TAGCTGATGA	TACCATTGAC	16260
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AACCAATGCG	TTACGGTGAG	AATCCTCAAC	AAGACGCGGA	CTTTTACCAG	AAAGCTTTGC	17640
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ATATCCGTGA	TGCAGATGCT	GCTATCCGTA	TCATCCGTGA	CTTCAAAGAT	AGTCCAACCG	17760

671

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CCAGTCCAC	ACTTACCACA	GAGTGATAGT	GATACAGCGG	TTGACACCAT	TGTCAAGCCA	19380
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672					
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673

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674					
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675

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AATTTGCCAT AGAGTTGATA CCACTTGAGG TAGTACCAGC CTTGGGCACT AGTCGCATCG	25020
TTGGCGTATT CGTCAGTACC AAAGTTGAAA ATCTTTGTTT TACCTGCAAA GAAGTCCATG	25080
TATTTACCGA TGAGGGCTTT TACAAAGTTC ATCGCTTCTT CGTTTTTCAA GTCCATAGTT	25140
GTTTTTGAAA CTTTATCAAA GTGGGCTTGA GGATTTTAA TACCTAATTT TTCCATGGCA	25200
ACCAGCATAG CATCCATGTG ACCTGGACTG TTAATAGCTG GGATGAGACC GATGTCCTTA	25260
GATTTAGCGT ATTCAATTAG CTCTGTTACT TCTGCCTGTG TTAGTGCACT ACCGTTTGA	25320
TCGTCGTAAGT AAGCTTTAGT TCCTTCGATA ATAGCTTTTT TAACGTCATC ACTAGCATAG	25380
GTTTTTCCGT TGGCAGTAAT GGTCAATCA TCGAGTAGAA AGCGAAGTCC GTCATTTCTT	25440
AGAAGGAGAT GGACATCAGA ATATCCGAGC TCACTGGCCT TGTCTACGAT GCGTTTGAGC	25500
TGGTTCAGAG TAAAGTATTT GCGTCCAGCA TCGATTGAGA TTACCTTGTT TTTGGCAAGT	25560
TTTTCAACCT CACGTTTAGC TTCTTCTTCT TTTTGAGCTT CAGGCGTGAG GGTCAAGTTG	25620
TTGACAGTTT CTTGAAGTTT AGCAATGGCT TGATCAATCG TATCTTGTG GGCACGGCTA	25680
AGGTTGCTAT CGAGAGAGCG AATAGCTTTT TCAGCTTCTT TTACGGCCGT GACGCTTTCT	25740
GCAGTATAAC GGTTCAGGTC TTTTGGTACC TCGTTAAGTG CTTGCTCTGC AGATTCAATA	25800
TCAGCTGCGA AGTATTCAGC GTTGGCATTG GCAAAATGAC GCATGAGTTT GAAGAGGCGT	25860
GATGGTGAAT AACGTGCAGA TGGAGTGTCA GCCCAAGCAG CTACCATAACC ACCGATGATT	25920
GGGATATCAG CTCCTTCTGT TTTTGGTACA GAAGTGATTG GTGTGTTTTT AATACCATTG	25980
AGCCCCTGAT CGAGATTGTA CCAGCCTTGG CCATCAGCGT TTCGTCCAAG AACGTAGTAC	26040
CAAGCATCAT TGGTATTAAG GATTTGGTGA CCTTTTTCAG CTAGTAGTTT AGAAGAAGCG	26100
ACATCGTAGC CTCCCCAACC ACCAGTCCAC ATAGAAACGA TGATGTCTTT GTCAAAACTA	26160
CCAAAGCTTG TGTCGCTATT GTAGTAGATA CCGTCGTTAA AAGCCATTGG TTTGAGACCG	26220
TGCGATTTTA CAATACGAGC GAGGTCATTG GCGTAGGCAA TAAATTTTTC ATAGCCTTTT	26280
ACAGGGTAGC CTTGCTTTGG ATAGTATTTA TCAGCTTGAA GCACACTCCA ACCTTTAGCA	26340
TCTGTCGCAT CATTGGCATA TTCATCAAGT CCGATGTTGA AGATTTTCAGT CTTTTTCGCG	26400
AAATAAGCAG CATACTTGTC GATAAGGGCT TTTGTAAAAG CGACAGCTTG TTCGTTGTCA	26460
AGATCGACAG TACGGGCTGA TTTCTTCCCA AAATAGCTAA AGTTAGGGTT TTGGATTCCC	26520
AATTCCTTCA TGGCATGAG AATCGCATCC ATGTGTCCAG GACTATTTAC TGTCGGAATG	26580

676

AGACCGATAC	CTTTATCTTT	GGCATAGTTA	ATCAGATCTG	TCATTTGACT	TTCTGTAAAG	26640
TGATTGCCGT	TTGGATCGTT	GTAATAATCA	TTTGTACCTT	TTTCAATGGC	GCGTTTGACA	26700
TCGTCACCTG	CATAGGTCTT	GCCGTTAGCT	GTGATGCTCA	TATCGTCCAA	CATGAAACGG	26760
AGTCCATCAT	TTCCGACTAA	TAGGTGTAAA	TCAGTGTAGC	CATAATGTTT	CGCTTTATCG	26820
ATGATTTCTT	TGAGCTGTTC	TGGTGAGAAA	TATTTACGTC	CAGCATCAAT	AGAAACAATT	26880
TTCTTTTTCG	CTAGTTTTTC	ATTTACAGTT	GCAGCACGTT	CCTTTCCTGC	CTCTGTTGCC	26940
GGTTTGTGAG	CCTCTGCTTT	CGCTTCATCT	TTTTTAGCTG	GTTTATCCTT	GTCAGTCTTG	27000
TCTGTATTGT	ACTCTTTAGA	ATCAACCTCT	TTGCTTCTCT	CCTTTTTAGG	GCTAGCTTCT	27060
TCTGCCCTTT	TATTAGCAGT	TTCTTTTTCA	GCAGAAGTTG	GAGTTACCAC	TTCTGCTTTA	27120
TCACTAGGAG	TTGAACCTAA	TTCTCTTGT	GGTTTTCTT	CTGTTTTTGG	AAGACTAGCT	27180
ACCTTATCAG	TAGCTGGAGT	TTCTGTTTCT	ACAGTTTTTG	GAGCTTCTGG	TTGAAGCACT	27240
GCTTTAGGTG	TTTCCTCAGT	CCGATTTTCG	GATGATTGAG	GGGAATCAGA	AACCGTATGG	27300
ATGGTCGGTT	GGTTTTCTGT	AGTAGTAGGA	GTAACCTCAT	CGGCTGCAAC	AGTCTGTGCT	27360
TGGAAGGCAA	ATCCAATTAG	AACAGAAGCT	GCTCCTACAG	CGTATTTACG	AATAGAAAAA	27420
CGCTGTTGTT	TTTCATGTTT	CATTGCAAAA	CCTCCTGATT	GCATTGTTAT	ATTGATAGCG	27480
ATTATATAAA	TCAACGCCTT	TATTTTATTT	CTTATATTAA	TTTCTTATAT	TAACGAGAGT	27540
CAAGAGGAGA	TGACAAAAAA	CTATAATAAG	TATAAAAAAA	TATAAAATTT	AAACTTAAGA	27600
TTTCAGATTG	GTCGGAAGAA	ATACGTATAT	ATATCTAGTA	TAATTTTTGG	TTCTATTTCT	27660
ATAAAATATT	CCACAAATTA	TAGAATTTTC	CAAAAATAGG	TAAGCGCTAC	CTTTTTGTTG	27720
TAGTATAATA	AGCATAGAAA	AAGCCCAAGC	GATTAGCTCA	GGTTTTCTTC	TTAGTGATCA	27780
CGGTCACATG	AGATAAATTT	AATCTTGTAG	TAATCAGATC	GTTTGTAAGT	TTCACTGTAT	27840
TCTAAACTTT	GGCCAGTTGA	TTGAGTTTGT	GTGATTTTAG	TTGTAGGAC	AGTAGGGAAT	27900
TGTTTCATCGA	CTCCGAGGAC	TGAAGCTGCA	TGTTCTGGAG	TTGGAAAGAC	TATTTCTGTTG	27960
ATTTCTTCAA	AGTGTTCATC	ATTCATGTGA	ATGTGGTAGT	CTAACTTGAA	ACGATTATAG	28020
ATAGAACTAT	AGTATTCAAG	GTTTGGATAA	TTTGCCTTGA	TATATTGTTT	TGGGATGTAG	28080
GATGTATGGT	AGATATAAAC	GACACCGTTT	GATTCGCGGA	TACGTTCAAT	CTTGATGTAG	28140
AATTGATCGC	CGCGTAGACC	CAATTTTTC	AAGTAAACAA	GCTTGTTTCC	GCGTTCAATT	28200
GAAAGAACAG	TTACCTTATC	ATCTTTAGCA	TTGAAGAGTT	CAATATCTGA	AAACTCTACA	28260
AGCTTGTGTT	TGCGTGACAG	TGAAACGAAG	GTTCTTTTTC	CTTGTTGGCG	GACAATATAG	28320
CCATCTTTGG	CAAGGTCGTT	TAAGGCGCGA	ACAACTGTGA	TAGAGCTGAC	ATCGTACATT	28380

677

GAAATGAGTT CTGCTTCACT GTAAAATTTA TCTCCACTGC TAAACTGCCC AGAGATGATT 28440  
 TTATTTTTTA ATTCGTCTTT TATGTATTGA TGG 28473

(2) INFORMATION FOR SEQ ID NO: 84:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 6749 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

CCTGATGGGT GGTATGCGAG GATACAGTTC TGAAAATCGC CGTTACTTAA TTAATGGACG 60  
 CGAAGTCACA CCTGAGGAAT TTGCTCACTA TCGTGCGACT GGTCAATTAC CAGGAAATGC 120  
 AGAAACTGAT GTGCAAATGC CACAACAGGC ATCAGGTATG AAACAAGGCG GTGTCCTTGC 180  
 AAAACTAGGT CGAAACTTAA CAGCAGAAGC GCGTGAGGGC AAGTTGGATC CTGTTATCGG 240  
 ACGAAACAAG GAAATTCAAG AACATCTGA AATCCTCTCA CGCCGCACCA AGAACAATCC 300  
 TGTTTTGGTC GGAGATGCAG GTGTTGGTAA GACAGCAGTT GTCGAAGGTC TAGCGCAAGC 360  
 CATTTGTGAAC GGAGATGTTT CTGCTGCTAT CAAGAACAAG GAAATTATTT CTATTGATAT 420  
 CTCAGGTCTT GAGGCTGGTA CTCAATACCG TGGTAGCTTT GAAGAAAATG TCCAAAACCTT 480  
 AGTCAATGAA GTGAAAGAAG CAGGGAATAT TATCCTCTTC TTTGATGAAA TTCACCAAAT 540  
 TCTTGGTGCT GGTAGCACTG GTGGAGACAG TGGTTCTAAA GGACTTGCGG ATATTCTCAA 600  
 GCCAGCTCTC TCTCGTGAG AATTGACAGT GATTGGGGCA ACAACTCAAG ACGAATACCG 660  
 TAACACCATC TTGAAGAATG CTGCTCTTGC TCGTCGTTC AACGAAGTGA AGGTCAATGC 720  
 TCCTTCGGCA GAGAATACTT TTAATAATCT TCAAGGAATT CGTGACCTCT ATCAACAACA 780  
 CCACAATGTC ATCTTGCCAG ACGAAGTCTT GAAAGCAGCG GTGGATTATT CTGTTCAATA 840  
 CATTCCTCAA CGTAGCTTGC CAGATAAGGC TATTGACCTT GTCGATGTAA CGGCTGCTCA 900  
 CTTGCGGCT CAACATCCAG TAACAGATGT GCATGCTGTT GAACGAGAAA TCGAAACGGA 960  
 AAAAGACAAG CAAGAAAAAG CAGTTGAAGC AGAAGATTTT GAAGCAGCTC TAAACTATAA 1020  
 AACACGCATT GCAGAATTGG AAAGGAAAAT CGAAAACCAC ACAGAAGATA TGAAAGTGAC 1080  
 TGCAAGTGTC AACGATGTGG CTGAATCTGT GGAACGAATG ACAGGTATCC CAGTATCGCA 1140  
 AATGGAAGCT TCAGATATCG AACGTTTGAA AGATATGGCT CATCGCTTGC AAGACAAGGT 1200  
 GATTGGTCAA GATAAGGCCG TAGAAGTTGT AGCTCGTGCT ATCCGTCGTA ACCGTGCTGG 1260

678

TTTTGATGAA	GGAAATCGCC	CAATCGGCAA	CTTCCTCTTT	GTAGGGTCTA	CTGGGGTTGG	1320
TAAGACGGAG	CTTGCTAAGC	AATTGGCACT	CGATATGTTT	GGAACCCAGG	ATGCGATTAT	1380
CCGTTTAGAT	ATGTCTGAAT	ACAGTGACCG	CACAGCTGTT	TCTAAGCTAA	TTGGTACAAC	1440
AGCAGGCTAT	GTGGGTATG	ATGACAATAG	CAATACCTTA	ACAGAACGTG	TTCGTCGCAA	1500
TCCATACTCT	ATCATTCCTCT	TGGATGAAAT	TGAAAAGGCT	GACCCTCAAG	TTATTACCCT	1560
TCTCCTCCAA	GTTCTAGATG	ATGGTCGTTT	GACAGATGGT	CAAGGAAATA	CAGTAAACTT	1620
CAAGAACACT	GTCATTATTG	CGACCTCAAA	TGCTGGATT	GGCTATGAAG	CCAACTTGAC	1680
AGAAGATGCG	GATAAACCAG	AATTGATGGA	CCGTTTGAAA	CCCTTCTTCC	GTCCAGAATT	1740
CCTCAACCGC	TTTAATGCAG	TCATCGAGTT	CTCACACTTG	ACTAAGGAAG	ACCTTTCTAA	1800
GATTGTAGAT	TTGATGTTGG	CTGAAGTTAA	CCAAACCTTG	GCTAAGAAAG	ACATTGACTT	1860
GGTAGTCAGT	CAAGCGGCTA	AAGATTATAT	CACAGAAGAA	GGTTACGACG	AAGTCATGGG	1920
GGTTCGTCCT	CTCCGTCGCG	TGGTTGAACA	AGAAATTCGT	GATAAGGTGA	CAGACTTCCA	1980
CTTGGATCAT	TTAGATGCTA	AACATCTGGA	AGCAGATATG	GAAGATGGCG	TTTGGTTTAT	2040
TCGTGAGAAA	GTCTAAGACA	GAATTTTGAG	GATAAAAAAG	AAGGAGCCAG	CTGAAAAAAA	2100
CTGGTTCCTT	TTTAGGTACG	ACAGGCATGT	CGTATAGTAG	AAGTGTATTA	TTCTAGTTTC	2160
AATATACTAT	AGTAGCTCAG	AAGTCGGTAC	TTAAACGTGC	TATATCAAAA	CCAGTCCTGG	2220
AAAAACGTGG	ACTGGTTTCG	TGTTTGGATT	ATTACCTTGA	ACGACATGCG	TTAAAAGTTA	2280
GTGAACCGC	CGTATGCCGA	ATGGTACGTA	CGGTGGGTG	AGAGGGGCTA	GAGATTATCC	2340
CCTACTCGAT	TTTAAATCAC	ATGACGTTCA	AAGGCATCAT	CTGAAATCCC	TTGTTCCAAG	2400
ATGAGTTTTG	CCCATTCTTT	AGCAGAGAAG	AGGCTGTGGT	CCTTGTAGTT	TCCGCAAGAT	2460
TCGATGGTTG	TCCCTGGGAC	ATCTTCCCAA	GTAGTAGTTT	CAGCGATTTC	CTTGAGCGAA	2520
TCCTTGATAA	CAGCTGCGAT	TTTAGCACTG	GTGTGACGTC	CCCACATAAT	CATGTGGAAG	2580
CCTGTGCGGC	AACCAAATGG	TGAACAGTCA	ATCATGCCGT	CAATGCGGGT	ACGGATGAGT	2640
TTGGCTAAGA	GGTGCTCGAT	AGTGTGAAGG	CCGGCAGTAG	GGATAGAGTC	TTCGTTTGGT	2700
TGCACCAAGC	GAATATCATA	ATTGGAGATG	ATGTCTCCTT	TTGGTCCTGT	TTCTTCCCA	2760
ATCAAGCGAA	CATAGGGTGC	TTTGACAATG	GTGTGGTCAA	GTTCAAAACT	TTCGACAATA	2820
ACTTCTTTTG	ACATGGTAAA	TCCTTTCAGT	TTTCTTCTCT	CATTATATCA	TAAAGGTTCG	2880
TCCTGAGACA	GAGAGAAAAC	CTCTCCGAGG	CTGGAGAGGT	TGAAATCTTT	ACTTACGATA	2940
TAAGCGGTCG	TATTGGTAGT	ATGGGTCAAA	GGTTACGTTG	ATACCCAGTT	TACGAAGGAC	3000
ATTCTTGTCT	TCATCAGTCA	AGATGATGGT	TGAGTGGGCT	TCGCTTCCTT	TGAGGTGGCC	3060

679

GAGTTCCTCC	ATAGCGCGGG	CAGCATCAGG	ATTTTCTGTA	GCTGTGATAG	CAAGTGCAAT	3120
CAGGATTTC	TTTGAATGAA	GGCGTGGATT	GCGGCTACCG	AGATGATCGA	TTTTAAGACC	3180
TTGGATTGGC	TTAACAACTT	CAGGCTCGAT	TAGTTTACT	TCTTTAGCGA	TGTCAGCTGA	3240
TTTTTTGATG	GCGTTGATCA	AGGCAGCGGC	TGTAGGACCA	AAGAGTTCTG	AGTTCTTACC	3300
AGTGATGATT	TCCCCATTTG	GCAATTCAAA	GGCTAGGGCT	GGTCCACCAG	TTTCTTCTGC	3360
TTTTTGGCGC	GCAACGACAG	CAACCTTACG	GTCTGCAGGT	GTGATACCGA	GGTCGTTTCAT	3420
GAGCAACTCA	ATTTTCTTGA	CGGCAGCTTC	GCCAACTTTT	TCAGCTTTGA	AGTCAAGAAC	3480
TGTTTGATAG	TAACGGCGGA	TGATTTCTTG	TTTAGAAGCT	TCGACAGCGG	CCTCGTCATC	3540
TGTAATAGCG	AAACCAACCA	TGTTGACACC	CATATCTGTC	GGTGAAGCGT	ATGGTGATTT	3600
TCCGAGAATA	CGTTCCAACA	TGCGTTTGAG	CACTGGGAAG	ATTCGATAT	CACGGTTGTA	3660
GTGACAGTG	GTTTCTCCAT	AGGTTTGAAG	ATGGAAGGGG	TCAATCATGT	TGACATCATC	3720
AAGGTCAGCT	GTGGCAGCTT	CATAAGCCAA	GTTAACTGGA	TGATGAAGGG	GAAGATTCCA	3780
AACAGGGAAG	GTTTCAAATT	TAGCGTAGCC	AGATTTGATG	CCATTGATTT	GGTCGTGGTA	3840
CATATTGGAC	ATACACGTTG	CCAATTTTCC	AGAACCAGGT	CCAGGAGCGG	TTACGACAAT	3900
CAAGTTGCGA	CTGGTTTTGA	TGTAGTCGTT	TTTGCCCATG	CCTTCTGGGG	AAATGATGTG	3960
ATCCATATCC	GTCGGATATC	CTTTGATTGG	ATAATGAAGA	TAAGAATCAA	TTCCGTTTTT	4020
CTCAAGTTGA	TTGCGGAAGG	CATCTGCAGC	GGGTTGGCCA	GCGTATTGTG	TAATGACAAC	4080
GGAACCAACA	AAAATCCCTA	ATTCAATTGAA	TTTATCAATC	AAACGAAGAA	CTTCTTGGTC	4140
ATAAGAAATG	CCTAAGTCGC	CACGTGCTTT	GGAATGTTCA	ATGTTGCTAG	CATTAATGGC	4200
AATCACAAAC	TCAACCTGCT	CTTCAATTTC	TTGCAAGAGC	TTGATTTTGT	TGTCAGGTTT	4260
ATAACCAGGA	AGGACACGAG	CAGCGTGGAA	ATCTTCTAAC	ATTTTACCGC	CAAACCTCTAA	4320
GTAGAGCTTG	CCGTCAAATT	GGTTAATGCG	CTCCAAAATA	TGGTCGCGTT	GTAAATTCAA	4380
ATATTGTTCA	GAACATAAAG	CTTGTTTTTT	CATTTTTTTA	CCTCTGGACT	CTATTATAAT	4440
AAAAAATTGG	AAGTTAGGAA	ACTACGAGC	TAAAAAGAA	ATTAAAAAGA	TTAAGCAAAC	4500
GCTTGACAAA	AATTTTAAAA	AGTGCTATCA	TAGACTATAG	ATTATGAAAA	TAATGAGGTA	4560
AACAGATGCA	AGAAAAATGG	TGGCACAATG	CCGTAGTCTA	TCAAGTCTAT	CCAAAGAGTT	4620
TTATGGATAG	TAATGGAGAT	GGAGTTGGTG	ATTTGCCAGG	TATTACCAGT	AAGTTGGACT	4680
ATCTAGCTAA	GCTAGGAATC	ACAGCAATTT	GGCTTTCTCC	CGTTTATGAC	AGCCCTATGG	4740
ATGATAATGG	CTATGATATT	GCTGATTATC	AAGCGATTGC	GGCTATTTTT	GGAACCATGG	4800

680

AGGACATGGA TCAGCTGATT GCAGAAGCTA AGAAGCGTGA CATTCGTATC ATCATGGACT	4860
TGGTGGTCAA TCATACCTCA GATGAACATG CTGGGTTTGT CGAAGCCTGT GAAAATACTG	4920
ACAGCCCTGA GCGAGACTAC TATATCTGGC GCGATGAACC CAATGACCTA GATTCTATCT	4980
TTAGTGGGTC TGCTTGGGAA TACGATGAAA AGTCAGGTCA ATACTATCTC CACTTTTTCA	5040
GCAAGAAACA GCCGGATCTC AACTGGGAAA ATGAAAAACT TCGCCAGAAA ATTTATGAGA	5100
TGATGAACTT CTGGATTGAT AAAGGTATG GTGGTTTCCG TATGGATGTT ATTGACATGA	5160
TTGGCAAAAT TCCTGACGAG AAGGTAGTCA ATAATGGTCC TATGCTCCAT CCCTATCTCA	5220
AGGAAATGAA TCAGGCGACC TTTGGAGATA AGGATCTCTT GACAGTAGGG GAGACTTGGG	5280
GAGCAACTCC AGAGATTGCC AAGTTCTACT CTGATCCAAA GGGGCAAGAA TTGTCTATGG	5340
TCTTCCAGTT TGAACATATC GGTCTTCAGT ATCAGGAAGG TCAGCCTAAA TGGCACTATC	5400
AAAAAGAGCT GAATATCGCT AAGTTAAAAG AAATCTTCAA CAAATGGCAG ACAGAGTTAG	5460
GAGTTGAGGA CGGCTGGAAT TCCCTCTTCT GGAACAACCA TGACCTCCCT CGTATTGTCT	5520
CAATCTGGGG AAATGACCAA GAATACCGCG AAAAATCTGC CAAAGCCTTT GCAATCTTAC	5580
TTCATCTCAT GAGAGGAACT CCTTATATCT ACCAAGGTGA GGAGATTGGG ATGACCAACT	5640
ATCCGTTTGA AACACTGGAT CAAGTAGAAG ATATTGAATC TCTCAACTAT GCGCGTGAGG	5700
CTCTTGAAAA AGGTGTTCG ATTGAAGAAA TCATGGACAG TATCCGTGTT ATTGGACGTG	5760
ACAATGCCCC TACCCCTATG CAATGGGACG AGAGCAAAAA CGCTGGTTTC TCAACAGGTC	5820
AACCTTGGTT GGCGGTTAAT CCAAATTACG AGATGATCAA TGTCCAAGAA GCGCTGGCAA	5880
ATCCAGATTG TATTTTCTAT ACCTATCAGA AACTGGTCCA AATTCGCAAG GAGAATAGCT	5940
GGCTAGTTG AGCTGACTTT GAATTGCTTG ATACGGCTGA TAAGGTCTTT GCTTATATAC	6000
GTAAGGATGG CGACCGTCGC TTCCTAGTTG TGGCTAACTT GTCCAATGAA GAGCAAGACT	6060
TGACAGTAGA AGGAAAAGTC AAATCTGTCT TGATTGAAAA CACTGCGGCT AAAGAAGTAC	6120
TTGAAAAACA GGTCTTGGCT CCATGGGATG CTTTCTGTGT GGAATTACTA TAAATATTTT	6180
TTGCAGAAAA ATTTAAAATT GAAATCGTAT AAAAACAAGG GAGGACTGTA TAAAAGACAG	6240
AAATCCTTTG TTTTTTATAA CCAAAGTTTA TAAACTTTCA TTCTTGAAAT TCAATTAAC	6300
TTACAAATTC CCACTATTAA GGAGAAAGAA GATGAACATA AAGAAGCGTG TCCTTAGTGC	6360
AGGCCTGACT TTTGCATCTG CTTTGCTTTT ACCCAAATCA TTCATACCTC TCTCAACTAG	6420
ATGTAACCTA CAAAACCCCT GACCTCATGA GCCACTTTCT TCCTCCTCAT GAGGTCAGTT	6480
TTACTTTCTG CTGTTCCAGT ATCGTTTTTC CTCGCTAGAT TTCCTCAAAA GGCAGACTC	6540
CTCCCTTGGT GCGTCACACG ATTTTTTCAT CTCGACTGTT CTTTAATGCA TCATTAACGA	6600

681

CGCTTTTCTT CTAGGTGGTT CATAAGGAAC AGGAAGATTC AGGTTGACTT TTCTAATCCT	6660
AGAATAAAGT GCTGAAAACA ATTCGGAATA GGCATAGAGA CTAGACAATT TGAGGAGCTG	6720
CTTGCGTCCT GTTCGAACAC ATTTTCCGG	6749

(2) INFORMATION FOR SEQ ID NO: 85:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1842 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

TCTACCCATG GACTTTGAGG CATTCAATGT TCCATCTTCT AGTGGCGAAT CTTTGTATAC	60
AAACGATTCA ATTCACCTGG ATAGTGAAAC TCTCCCGCAA ACATTTTCTT GGTAACTCA	120
ATCCAGCTGA TATTTCTTTC AGCCAAAATA ATGGACAAGT TCTCCCAAAA TCGTTCAGCC	180
ATATTGCTTC TCCTTTAGTT AGATAAATAA TGTGTTTTCG CCATGTAAAT CAATGTGTTT	240
GTATCTCTTG GCAATAGAGC TCTAGCCTCT TCCAAATTC AACTCGCTTA	300
TTTGAAACCG CAAGAGGAAG TCTGATGGTT AGTTCAGGAT TTTTAAAAAT TATCTCAACG	360
AAATCCGTTA ATCTTAGATT GTCACGGTTC TTAAATCGTA ATAAATTGGG AGATAAAAAC	420
TCAAAACAAT CTGAAGAATA GCTCATCATC TCAATTAATT TGTCCCTTGT CATTTCAGAA	480
ACTGAATGAC AAGATACCTC TATGCCATAG TTTTGGAAGA AATCTAAAAG AAGTTGATTT	540
CTTTGTCTAT TTTTACTTAG ATAGAGATCA ATCATGGGAG ACCTCCCAA GATTCGGTTC	600
CATTTGATAT TCTGACACGA TTAAGGAATC TAATAAATTA AGGAATCTAA TAAATTTGCG	660
AAGTTAATCG GTTTCTTGTC TTCATCATAA GCTTTTACAG TTAAGTTGGT TGTAAATATT	720
CCCTCTTTTC CCTCGGCTCG ATAGCCTTGT CCATATAAAA CAAAAACGAG ATTTTGATGA	780
TCATCTACAA AGGCATCAAC CCCATTCTTT ATGTCTTGAC TTTCAAGGAA TTCCATAACG	840
TTTTGAAGAT AGGATTTCGTA AAATAGTGGG TAGTTATGTT TTTTATGGTA ATCATCTAAA	900
AATGTCACTT CAAACTCACA TGGAGAGTAA TTTTGACTTT GAACAGCCTA AAAGTGCCAT	960
CAAATTTGAA TTGGAATAAA TCAAATAAAT AGCCCCATCC TCATCAATCC AACCTTTGCT	1020
CAAAGACAAC TCCAACCGAT CTTTAAAAAC TGAGTAAACC ACCTTAACCT CCAGTTTCAT	1080
ATTCTTATAC CGTTCACTCT CAAATAAAAG TTTGGGGAGC TTATAATAAC GCTCTGATGT	1140
CTGATATTGA TTAGCGGTAA TACGCTTCAT TATTGTCCCT CCAAGACTAA AATTCCAACA	1200

682

TTTCCAAATT CATCAAATCG GATTAAACCT ACTTGTTCCA TTTCATCAAC TAACTGAGTT	1260
GCTTTTACCC AAATCATTCA TACCTCTCTC AACTAGATGT AACTTACAAA ACCCCTGACC	1320
TCATGAGCCA CTTTCTTCCT CCTCATGAGG TCAGTTTAC TTTCTGCTGT TCCAGTATCG	1380
TTTTTCCTCG CTAGATTTC TCAAAAGGGC AGACTCCTCC CTTGGTGCGT CACACGATTT	1440
TTTCATCTCG ACTGTTCTTT AATGCATCAT TAACGACGCT TTTCTTCTAG GTGGTTCATA	1500
AGGAACAGGA AGATTCAGGT TGACTTTTCT AATCCTAGAA TAAAGTGCTG AAAACAATTC	1560
GGAATAGGCA TAGAGACTAG ACAATTTGAG GAGCTGCTTG CGTCCTGTTT GAACACATTT	1620
TCCCACCACG TGAAGAAAAA GATGGCGGAA GCGTTTGATT GTTAAAGTTT GGAAGTCACC	1680
TCCAGCTAGA TGTTTGAGAA AAAGATAGAG ATTGTAGGCG ATACAGCTCA TCATCATACG	1740
AACTTCGTTT TTGATTAAAG TTGAACTATC CGTTTATCG CCAAAAAATC CCTCCTTCAT	1800
CTCCTTGATG AAATTCTCGG CTTGACCACG TCCACGATAA AG	1842

(2) INFORMATION FOR SEQ ID NO: 86:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19390 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

TCATCTTTAT CTCCTCGAAA TTTTCTAATA TAGCCATTAT AACAGAATTT TGTGAAAATT	60
CCTATTATAG TAAATCACTA TTTCAGTATA AAAAGAAAAA ACGAATCAGA CGATTGCTC	120
TTCTTAAAAT CTGAAAATAG CTTTCCAGAA AGGATTAGCC GATTTTTTGC AGATTGAGCA	180
CTGCATCGTG ACTCATCAAG ACTTGACCAT ACTCTTGTA GACTGAGCGA CTGATATCAC	240
TATCGTCTGC AAACCTCGCG ATACGGGCCA ACAGCCAAGC TGGATATGGG CTTGGATGAT	300
TTTCAATATC CACTAAAATG GTCAAATAAT AGCGCTCGTT CATTTTGTAG AGTTCAGAAG	360
TTTCCATTTC AAAAGTCACT GTCTTGGCAA AAGCTACCAA GTCAGCCAAC TTAGCAAAAG	420
AAAGGATGTA GTAGATGTAA GGTCTTTCT TACTCTCAGC TTCTTGTTCA GCCTGCTCTT	480
GCTCTTCTTC CTTGACTTCA ACTTGCTCAA GAGATTGAAT GGCTTCGATA TCATCCTTGG	540
TTTTGTCTGC GATGCTTTTT TCCAGGGTTT TGATAAATC ATCTGGAGAC ATTTGAGCCA	600
ATTCTTCCAT ATCTGGCAAA TCCGATAAGT CTTCAAAATC TAGATTTTGG TCAATCTTTG	660
ACTTGGTCAC AAAGACATCT ACCTTATCAG GTTTTGGAGT CACACGGAAG CTCAACATGC	720
CTGTATCCAG AAAGCTATCA GGCATCTCTA GCTCATCCAA GATAGCATAA AAGAACTCTT	780

683

CTGTTTTTTC	TTGAGGAACG	AGAAAGTCAG	CAATCTCCAT	TCCACGATCC	ATCAAATCCT	840
CTAAAGATAT	CGTGATTTTT	AAAGTTGTAT	CACTAATTTG	TTTCATTTTC	ATTGCTAGTA	900
ACCTCATACT	TTCAGTTCTA	TCTATTATAC	TAGATTTTTA	CGATTTTATC	AAAAGAAGGC	960
TCCTCTATAC	GGATAGATTT	TCCCTAGGGT	CTTCTATAG	GAGACTCCAA	AAGAAAATTT	1020
CTGCAGACAG	ATAGAAAAAG	CCTTCAAAAT	CGGCTAAGAG	CCGACTTTGA	AGACCTTATA	1080
CATCAGAATA	CTTATAATTT	AAAGGTGCT	ACACCGAGGA	TAGAACGATT	TAAGTTTCTG	1140
AGAAATTTGAA	GACTTTGCTC	AAATTTCTTA	TAACGAGTCA	CTCCGTACTC	TTCAACAAGA	1200
AGGACTGTAT	CTCTTTCCAA	AAGAGATGAT	ACATCCTGTA	AATCTACAAA	ATGCATTCCT	1260
TTTAAAGCTT	CTTGACTCTG	TTTCAATTTA	TCTAAGATAG	CTTTATTTGA	GCTAACGATG	1320
GTCAATTCCT	GTCCAGTATT	TTTGTATGAC	AAAACATCTG	CTAGGTTAGC	AATTGTTGTA	1380
ATCTCTGTTA	CAAAATCAAT	TTGATACTGA	GAAAAATCAC	CTACTCTATT	GATTGTTGGA	1440
TTAAAGAGAT	AAACTAACAC	ATTTCCCATC	ACAACCAAAA	TCACACAAAC	CACTCCAATA	1500
ACAATAAAC	GAAGAATCAG	ATTTTTCACA	TTTAAGCCAA	GCGCTGTTTC	ACCATTTGCG	1560
TTCAATTCCT	TAGAGTTGAT	GGTTTCCAGT	TTTTCAATTT	TCACATTTGC	ATAGGCATGT	1620
TTAAATTTCT	CAATCAACCC	ATCAATTTTT	TTCTCTAACA	AGTTATTGGC	ATCTTTACTT	1680
GATGTCAAAA	TTTTCACACC	AACCCCTGCA	TCGTCAATCA	TATAGTAGAC	GGTCAATTTT	1740
TTCCACCAAT	AGTCATTTCGT	TGAATTTTTC	AAGGTTGTTT	CTGTCGTGTC	TAATTCACTG	1800
GCAATTTTTT	TCAACTCACT	GGTCTCTACA	TCATTGAAAA	GATAAGCTCC	ATTCAAATTA	1860
CCATCAATCA	ATTTCCCAT	AAAATCACTA	TAACCACCAA	TTTGATGATT	CAAAATCGTT	1920
TTGTCCGACT	CTTTTGGAGG	AGTGATTTTA	TAGATAAGAT	AAGTTGAATA	ACTTGTGTA	1980
TCTTTGACAG	TGTTTTTATT	CCTAACTGCT	TTAATTGTAA	ATGGTACAGC	AATGAGAGCA	2040
AATAAAGCGA	TGAGAGCTAA	AATATTTGCT	TTTCGCTTTT	TATAAAGATT	TGCAAACAAA	2100
TCAGCTACTG	AATAATGTTC	AAACATGATT	TTTTTCTCCT	TTGTTTAGTA	GATACTAGTT	2160
TTCTTTTGTA	AGCATTTTTG	CTACAAATAT	AATCACAAGA	ACAATTCCCC	AGAATTGCAT	2220
TGTAAATAAA	TTGAAGAAAC	TTTCTGAAAA	GCTGCTTCTT	GGCATAAAGA	ATAGATTATT	2280
CAAGATGAGT	AGGGATAAAG	CAAATAGGAT	TGTCCTTGAG	CGATAGGCTA	CTTGACGAT	2340
GGCTATAAAT	AATACGCCGA	GTAAGAAACT	AAGCAGAAAG	ACTCCAATCA	TACCATAGTC	2400
GGTATACAAC	TCCATGATAT	AACTACTTCC	GATACCATGC	CCTTTCAAGT	ATTCCTTGTT	2460
CAAGACAAGA	TAGGATAGAT	TGTGGGCATA	ACTATTACTA	TCAATAGCTA	GTTCCACACT	2520

684

ATTGGTTGTA	TGTTCAAAGG	CTTTTCCTCC	GAAAATGGCT	CCCAAACCTCC	CCCTTGCAAA	2580
ATAATCAAGA	ACAGGACCAA	AAGTAAAATT	ACGGAAATCT	CGGTAAGGGA	GGCTACTGTT	2640
AAATAGAAAA	CCTCGAGCCA	GAACACCAAA	ACTAGTCCCT	TGTTTATAGA	TAAAGTCAAG	2700
TAAGATATCC	CAGAAACCTG	TATGGGAAAC	TTGGACATTA	TCCCGTACAT	AATTGAGTAC	2760
TCCCATCGCT	AACATGAGAA	TAGGAGAACC	TACAAAAATC	GCTAACTTTT	CTTTAAACCC	2820
AATCCATTTT	CCTTTTTCAG	TTTGCTCCCG	CATAAAGTAA	TAAACAAAAG	CAAATmAAAT	2880
ACTTAAAATA	AAGGGATTTC	GTGTCCCAAT	TGCCAAATGA	ATAGTATTAG	CTGCAATAAA	2940
GGAGACAAGC	ACTGCTGTGG	CCTGCAATTT	CTTTGGCTTG	GTTGCCAGAT	ACATACACAT	3000
TGCATAGACC	GTAAAGGTAG	ACAAAATGTA	GGTAAATAA	GGCAGTTTAC	TTTCAAAATT	3060
TGCATAGTAG	GCATAGTAGG	AAGTCTGCAA	ACGATACAAG	AGCCGTTCAT	ATAACCGAAT	3120
GAAATAGAAA	GGATAAGTTA	GAAGAAAAAC	TCCTAGTGAT	ACAAAGCGTA	ACCGCTTGAT	3180
ATAAACCTCT	TTTAGAGAAT	TTCTATATTT	TGCTACTTTT	ATTTTCTTCC	TAGCTATGAA	3240
GTAACGAGCC	AGAATGCCTC	CTGTGGTCAA	GCCCAGAATC	GAAATCATGA	CAACTATAAA	3300
GGCAAAACGA	TAGGCTATTG	GATGATAGGT	ATCCAAAGCA	CCATCCCTAA	AATAATCAAT	3360
GGTCGGTCTT	GATACCAGAA	ATACAAAAAT	GGTTAAATAG	AAAATAAAAT	GGATTAAAGTA	3420
ATACTTGATA	TCATTCCAAC	AAGCAATTAA	GCTACTAACC	AACAAGAACA	ATAAAGTAGA	3480
AAGTAAGCTA	ACATTATTAT	TATTAAACAG	ATACACAATT	CCACTTACTA	GCGTCAAGGC	3540
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AATATTTATG	AATAGGGCCA	AAGCACTAAT	TCTTCTCCCC	TTACGGAAAA	TTGGATTCCCT	3720
AGAAATAGCA	AAGGCATGGC	CTTTTAAAAA	ACGATGAATC	TGAGAATAGG	CTTCAAACCTG	3780
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GAAAAAAGCG	ACCTCTTTCA	AGTCAGGATA	GTTTTTCACA	ACTTCATTAT	AAAACCTTTTG	3900
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TGCAATCTGT	CTCTTGATTA	GCTTATTGCA	AATCGTCCCA	GGTATTTTTT	CACCTATGAG	4140
GTATTCCTTT	AGAAATGTTT	GAGAATCACA	GACAAAAATAG	TCATCCTGAT	TGGCTGACTG	4200
TGGGCTTTCA	TCATTAGCAT	AGACATTCAT	GACACCACAG	CTCGAAACAT	CCGCATCTTC	4260
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685

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CAAGCGACCA CTTTCATCTG TTGCACCATC ATCAACAAGA ATAATTTCCA GATTTTGATA	4500
GGTCTGCTTC TGAATGGAAG CTATCGATTT TTCTAGGTAC TGCGCCACAT TATAGACTGG	4560
CACAATCACA CTAATTAATG CAGTTTCCAT GCTACTCCTC TAATAGTTTT TCTACTTGTT	4620
CGATTTGTTT TGAATTGTA AATTGTTGAA TGAATTGGCT AGCCTCATCG ACATCAAAGT	4680
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TTTGTCCTTCT TCGTCCTTCT TGGGATAATT CCTCAGCCCC TCCAACGTCC GTAGAGATAA	4800
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CACCAGCCCC GATAAAATAG AGATGATAGT TTTTCCCTC TTGGTGTAAT AATCGTATCA	5040
CTTCCACTAC ACGGTCAGAA CCCTTATTTT CCTCAATCCG TCCGATAGTA CAGATACTTT	5100
GAGGAGCAAT CTCGATATCG ATCTTCTCTT GAGATTTTTC TAGAATAGTC TGAAAATCAT	5160
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TGCTGGTCTT TTTTGAAATC CCTACAATG TATTCGCAGC ATCCAACCTGG CTCTATGTG	5280
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CGGAGAGATT TTGGAGTCAA ACCCAGTAAA ATGCGACTTC CCCATTTTCAT GAGATCACCA	6060

686

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TTTTTCCGCT	CAGCTGGATT	TTTCGGATAA	TAATCCAAAG	GCAAAACATC	CAAGGCCAGA	6180
CCATGTGGCA	AATCCAAATC	CTGCTGATAA	GGCTTGATAC	AGGTGGTTT	CTTGTCACGA	6240
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CGAAAATCTC	TTCAAACCAC	GTCAGCTTCA	CCTTGCCGTA	GGTATAGGTA	ACTGACTTCG	6720
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AACGAGCATA	ATTGAGCAGG	GTCGAGCCAT	TCATCTGCTG	TTTTCCGACT	TTAATGGTTT	7200
GGGTGAGAGA	CTCAGTCTCG	GTCGAGCATA	AATCATCTCC	GACTGTAGCT	TCTGTTAGGG	7260
GACGCCCATT	CAATGTTGAA	AATTGAGCAT	CAATCGTCAC	CCCATCAGGG	AAAAGCGTGT	7320
CAATCGCTGT	GGCAAAGGCC	TGGAAATCAA	CCAAGGCGTA	GTAATTAATG	TCCAAGTCAA	7380
AATTATCTTT	CAAGACTTGG	CGAACCATTT	CTGCCCTTTT	TGCCCCCTCT	TGTTCTCCTA	7440
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AGCCCCCGAC	ATTTAATACC	ATAATAGAGT	CAGTTCGTGT	CTCAACACTG	TTCTGGCCGA	7620
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AGACTTCTAC	TTGAGCTGCC	CGGGCATCAG	CAGTTTCTCT	TGCGCTAGCA	TCTTGGTAAAC	7740
CACGCAAAAA	CATGAATACC	ATGGCCAAAG	CCACACAGAC	CAAAAGTGAA	AAAATCACCA	7800
TAAAAATTCG	TTTAAGACGG	AGCTTCCGTC	TTTTCTTTTT	TGGAGGGAAA	GAGAGTGCTT	7860

687

GTGATTGGA TTGTGAGCGA CTCCGGTTCG CATAGCTTGG TAAGTCAACC TGCTCTTCTC	7920
TTTCTTGTTT CAAGCTAGAG CTACTATTTC CCCTAGCAAG AGTTAGCTTT TCTTGCAAAT	7980
AGGCAAAC TC ATTTTCTT CTCTCATTGA GATAGTGAAT ATTTTCTAGC AAATAATCAT	8040
AACGCAACTG CTCATGATGA CTTAAGGGAT TTTCTTTACT CATCTTCTCT CCTTTCCATG	8100
GTCTGATATT GGATAAATAG GATAGGCACC CAGAATTTTA TACTGGATTC CAATCGCTTC	8160
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AACGTGGTGT GAAAATGATC CCTTGGGACC TAGATAAGCA ATTTTCATCT TAGTTCCTCT	8940
ATAATTTCTT CTGGGCTTAG CTTGGTCACA TCCAAAACCC GACTAGCCAC TTCCTCATAC	9000
CAAGCCTGTC TTTCTTGGA AATAGCTACT AGTTCTTCCT TGCTATTATT TAGAAAAAGC	9060
GGTCGCTGAT TGTCTTATC AGCTGCGATA CGTTGGTAGA GGTTTCAAA ATCTGCTCTC	9120
AGGTAGATGT TATCTGTATT AGTCTTGAGT AAGTCACGAT TTCTCTGAGA AATAACCACT	9180
CCTCCTCCAG TTGACACGAC TTGGTCTGTT TGTAAGTAAAT CAGCTAGGAC TTCTGATTCT	9240
ACCTGACGAA AGGCTGTTTC TCCCTTTTCA GCGAAAAAAT TCGCAATGGA CATACTAGG	9300
CGATTCTCAA TCAGAGCATC CATATCAAGG TAATTAGGGT CCAAGCCTCT TGCAATAGTC	9360
GATTTTCCAG CCCCCATAAA CCCTAATAAC ACCTTAGCCA TGAATCAAGC TCTCCAAATC	9420
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ATCTGCAACC AAGAGGGCTG CGATAGCTGT CATCATGCCG ATACGGTGGT CACCAAACGT	9540
ATTGACTCTA GCACCGTGAA GAGCTGATTT TCCTTTGATA ATCATCCCAT CTGCCGTAGG	9600

688

AGTAATATCT	GCTCCCATAC	TATTTAAGGC	GTCTGCCACA	ACCTGAATAC	GGTCTGTTTC	9660
CTTGACCTTG	AGCTCCTCAG	CATCCTTGAT	AACTGTTACA	CCTTGGGCTT	GGGTCGCAAG	9720
CAGGGCAATA	ATGGGCAATT	CATCAATCAA	TCGTGGAATC	AAAGCGCCAC	CAATCTCTGT	9780
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AGTTATTTCC	AATTTTCCAC	CCATGGCACG	AATGACATCA	ATAATACCGG	TGCGAGTTTC	9900
GTTGATCCCC	ACATTCTGCA	GCACTAGACG	AGAATTTGGA	GCAATCAAAC	CTGCGACTAA	9960
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CATATCTTCA	GTATGATTAC	GGGTGTACTC	TTTTTCGATA	ATAACTGACT	CCCCCTTAGC	10140
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TTTGAAAGA	CTATCATCTC	CAACATCTC	TACTTCGAAA	TCTGCACCAG	CAAGGACACC	10380
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ACCAAGGTCA	CGAAAAACCT	GCATGGTCGA	AAGAACGTCT	TCACCTCGCA	GAATATCATA	10560
AACCTTGATC	TCACCTCAG	CCAACTTCC	AAAGATAATG	GAACGGTGGC	TGATAGACTT	10620
GTCACCTGGG	ACGCGGATAC	TACCATGTAA	ATGGCGAATG	TTTGTTTTTA	GTTTCATACT	10680
GGACCTCATA	CTTGCAATAC	TTTTACCTAT	TTTATCATAA	AAAGCCAGAA	ATTCTTTAAA	10740
AATTCCTGAC	TTTAGGATCG	TTCTTTTCTT	ATTTTCAGAA	TTCTGAAACT	GGTTCAAAAA	10800
CAATTTTTTC	AATATCAGAA	AGGTAAATGG	CCAATTGTTG	TTGCTTGATA	AAGAATTCTG	10860
ACAAGAGGCT	ATTTCTCTGA	ATCTGTTTAC	CAAAGCCTTC	CATCTTAGCT	TGGAAGGACG	10920
CATCTGGCAT	TTGACCTGTC	TGTGCTAGTT	TTTGAATTTT	CTCTTGAAAG	GCAAGATAAT	10980
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TGCTCAGCTC	TTTCCAAGTC	TTGAGCATTT	TTAAATGAAA	TTTGTAGGAT	TCCGTGAATA	11220
TCCTCACGAT	TTTCTCTGTT	GATGTGGATA	TTAACCAAGG	AAGTTCCACG	TAGCAGTTCC	11280
AAAATCCGCA	GGATGACATC	TTCTTCATCA	GGAACGTCAA	CATAGAGGTC	GTAAGAGCTA	11340
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689

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CACATTCCCTG	GCTCGCTTTC	CGCAATTTCGG	GTCATATCTC	GAAAACCACC	TGCCGCAAAG	11580
CGCCTTGCCA	TCTCATGCTC	TTGAGCATAG	ACCGCAGTCT	GCTCCATGAG	ACTAGAAGCC	11640
AAAATATGAG	GAAAATGGCT	AATCTGAGAA	GTGACACGAT	CATGCTCCTT	GGCATCAATC	11700
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GAAGCAGCCC	CTGTCTTGTG	ACTACCAGCC	ATGGGATGGG	CCCCGACAAA	GCGAACAGAC	11880
TTGCCAGCCA	AATACTGCTC	CGCCGCATCC	ACAATGGTTG	ACTTGGTCGA	ACCAGCATCT	11940
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ACAACGATGG	GTTGCCCATT	AGTCATACCA	CCTTCAAAAC	CACCTAGATT	ATTGGTACGG	12540
CGAGTATAAC	CGTCTTCTTT	AGACCAGAGA	ATTTTCATCCA	TAACCTGGCT	GCCTTTACGA	12600
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GCTACTGCAC	CAACTGCCAC	CCGCATGGTG	GTTTCACGAG	CTGATGAACG	CTCCAAAGAA	13020
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690

TCCAGCCATT	TCTGGTGGTC	CTTATTGATG	ACATCCATAG	TAATAGGCGC	CCCTGTCGTC	13200
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CCACGACCGT	AGCCACCCTG	ACGGCGTCTA	AGGTCCCTCAT	TGATATCCCTC	AGCTGTCAAT	13320
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GCAGTTAAAT	ATCTCATACA	CTCTCCTTAT	TTTACCAAGT	AGTCTTTCAT	CTCTTCCAGA	13440
GAAACTGGGT	GAATGGTCGC	TGAACCAAGC	TCTGGCACCA	AGACCAATTT	CAAGGTGTTA	13500
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GGCATGAGGC	CTTTTTCCTC	AGCAACCTTG	GAAATCTGTA	CCATTCCCAT	GGCAACAGCC	13680
TCTCCATGCA	TGACCTTGCC	ATAACCGGCA	GTCGCTTCGA	TGGCATGGCC	AATAGTGTGG	13740
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CCATTCAAGTC	CCGTCAAGAG	AGCCCACAGT	TCTGGATCCT	CAATCAAGCC	ATACTTGATA	13920
ACTTCAACCA	TCCCTTCAAT	CAACTCTCTT	TTTCCGAGGG	TTTCAAGAAC	AAGTGGATCA	13980
ATCAGAACCC	CATCTGGTTG	GGCAAAGGTC	CCCACCATAT	TTTTAGCAAA	TGGTGTATTA	14040
ACGCCTGTCT	TTCCACCGAT	AGAAGAATCA	ACCTGAGCTG	TCAAACCTAGT	CGGAATCTGA	14100
ACAAAGTGAA	TACCCCGCAT	ATAGGTAGAG	GCTACAAATC	CAGCCAGGTC	CCCAACAACG	14160
CCACCACCAA	GAGCAACGAT	TCCATCGCTA	CGAGTCAGAC	CTTGCTTGAC	TAGAAATTCA	14220
TAGACTTTCT	GAACAGTAGT	TAAATTCTTT	CTTCTTTCAC	CTTCTAAGAA	ATCAAAAACA	14280
GCTACCTGAA	AACCAGCATC	TTCTAGGCTG	AGCTTGACCT	TCTCTGCATA	GAGAGAGGCT	14340
ACATGGTTAT	CTGTCACAAT	GACTACCTTT	TGCGGTGACC	AGAGTTCTCG	CAACCACTGA	14400
CCAGCCTGGG	CCATACAACC	TTTTTCAATC	TGAATATCAT	AAGGATGGTG	AGGAATATCG	14460
ATTCTGATTT	TCATAGGAGA	GTCTCCCTTT	CTTTATTGGT	ATTTTCTGT	TAAAGACTGC	14520
CAAACTCTCT	CTGTCGGCAT	TTCTTGCCCT	GTCCACAGTT	GAAAAGCTTC	TGCAGCTTGA	14580
TAGAGTAACA	TTCCAGACCC	ATTGACTGCT	GGATTGCCCT	GACTTCTAGC	CCATTTCAAA	14640
AACGGTGTTC	CAAAGGGTTG	GTATATGATA	TCTGCAACTA	AAAGAGTTTC	TGGTAAGACT	14700
ATGTTTTTCAG	GAACAGGAGA	GGATTGGCCA	TCCATGCCCA	CACTGGTGGC	ATTAACCTAGC	14760
AAATCCGACT	CGGCAATCCT	TGCTTGCACT	TCAGAAACAT	ATTCTAAAGC	ACACAAATCC	14820
ACTTTAAAAC	CTGTCTGCTC	CTGTAACCTG	TCTAGGTAAG	GTCTTGTTTT	TTCCATAGAA	14880
ACGGAACGAA	CAAAGACCGA	AATCTGACTG	ACGCCATCCA	AAATAGCCTG	TGCCAAGATT	14940

691

GATTTAGCCG	CACCACCTGC	ACCCAGCAGG	GTCATCTTTT	TACCTGAAAT	TGTAAAAGAA	15000
GGCAAGCACT	TAAAAAATCC	CTTGCCATCT	GTATTATATC	CAATTAAATT	GCCATTCTCA	15060
TTGACAACCG	TATTAACCGC	ACCAATCAAG	CGCGCTTCAT	CGCTCAGCTT	ATCCAAATAA	15120
GGAATCACCT	GCTCCTTATA	GGGCATGGAC	AGATTGATGC	CAAACATCTG	GTAGCGACGA	15180
ATATTGGCCA	CTGTTTCTAC	CAAGTCACTC	GCTTCAATCT	CCCAAGCCAC	ATAAGCACCG	15240
TTGGTAGCTG	TCGCCTCAAA	GGCTCTATTG	TGGATGAAGG	GAGAAATAGA	ATGCTTAATA	15300
GGATTGGCAA	CAACTGCAGC	TAAACGTGTA	TAGCCATCAA	GCTTCATCCA	AAATCTCCCT	15360
GATTTTTTTC	ATGCTAGCTA	GAGAAATCTG	CCCAGGGGCA	CTAACCTCAT	CCAGACTGGC	15420
AAAAGACCAA	CTCGAACCAG	TCACATCCGC	AGTGATACGA	GAGACCTTGC	CCACCTTACC	15480
CATAGAAATG	GTCACATATT	CCTGTTCAGG	ATTGAGGGTT	TTAAAGCCTC	GTGTATAGTT	15540
CATCAAGTCT	AAGACATCCT	GCTCCGTGTG	AGCCATCACC	GCAACCTTAA	CAAGTTTGG	15600
ATTTAGGATC	GTCAACTCTG	ACAAGATTTC	CATCATGTTC	TCAGGTGTTT	CTTGGAATTT	15660
ATGGTAACTC	AAAACAAGAT	TTGGGAAGTC	CAGCATTTCC	TCAAAAACAT	CCTTGTAGCT	15720
ATAGTACTCA	AAATCAATAT	AGTCTGGTTG	ATAGAGTTGC	GCAACTTCCT	TGATTAGATG	15780
GATATACTCT	TCTGGAGAAA	GGTCGATTTC	TCCACCTTCG	GAGCGAGTTC	GTAGCGTGAA	15840
AACCAACTCA	CGGCCTGCGA	ATTTTTCAAA	AATGGCTGGA	GCTACCTGCA	AAATCGCTTC	15900
TTTAGGCAGA	TAGTCGGCAC	GCCATTCAAT	GATGTCGGCA	TCCAGGTACC	TCGTGGCATC	15960
CAGAGCCTGA	GCCTCCTCTA	AACTTCTTGG	CATTACTGAA	ACGATTAATT	TCATTTACTA	16020
ACCTTCATAC	TAATCACCTT	GAGGTAATTA	CTACTTTCAT	CTTTTTTATT	ATAGGCAAAA	16080
TCTGCTGGAA	GACCATATTT	GTTTAAATC	TGGTAACTTC	TTCTTGCAAA	ACCTTTATCA	16140
ATTTGTCTG	TAAATTTCTG	ACGGGAAACA	TTGGCAGCAT	TGGTACTGGC	AATGATAATC	16200
CCTCCCGGAT	TTAAAATCTC	AAGACTCTGG	GAAATCAACT	TGTGATAATC	CTTGCCACA	16260
GAGAAAGTTT	GTTTTTTTATT	CCGAGCAAAG	CTAGGCGGAT	CTAGGACAAT	CACATCGTAG	16320
GTCAAGTCTT	TGCGTTTGGC	ATATTTGAAA	TACTCAAAGA	CATCCATGAC	TATAAAACGA	16380
TGCTCGTCTG	TGCTGAGCCC	ATTTGCCTGA	AAATGCGCTT	GAGACAATTC	TCGTGAACGT	16440
TTGGCTAGAT	CAACAGAAGT	TGTATGGCTA	GCTCCTCCCA	TGGCCGCAGC	TACTGAAAAA	16500
GCCGCTGTGT	AGGAAAACAT	ATTGAGTAAG	GATTTACCCA	TAGCCAAGCC	GTCAACTAAA	16560
CTACCGCGAA	CCTCATGCTG	GTCTAGGAAA	ATTCCTGTCA	TCAAGCCATC	ATTCATAAAG	16620
ACTTGATACA	GGACACCATT	TTCTAAAACA	TTGAAAAAGT	CAGGTGCTTC	TTGACCATAA	16680

692

ACATGGGCAG ATTCATAGTC CAAACCCTTA AAGCGGATTT TCTCATAAGC TCCTAAAACC	16740
TCAGGGAAAA CCTGTCTAAA GGCTTCTGAT ATAGTCTGAC GAATCTGATA AACATAAGAG	16800
TTATACCAAG AAAAGACGGC GTAGTCGCCA TAAAGGTCCA CTGTCAGACC CCCAAAGCCA	16860
TCTCCCTCTT GATTAAAGAG ACGAAAGGCA GTTGTCAAAT CATCTTGATA GTAGGCGTTT	16920
CTCTTTTCTT TGGCTTTTCT AAACAACGTT TCAAAGAAAG CTTGATTGAA GGCCACCTTG	16980
TCTTTGCTGA TAAACCAGCC CAAGCCCTTG TTTTGCTGAG AAAGGTAGGC AGTCCCAAGA	17040
AAGTTTCCTT CCTGACCCTG CACCTCTACT TCCTGATCCT TAAGATTGAC ATTCTCAAGA	17100
TCACTGGCTT CTAGTAAAC TAGCCCCTTA GCAAGCTTCT TTTCAACCCT TTTGCTGACT	17160
CTTATTCAT TCATAACTAC CATTATATCA AACTTTTAGA CAATTCTCAA AAAAGAACT	17220
ACCCTTGCTT TTTTACTCT CTTTAAAAA ATGGTATACT AGACTTCCTG CAAAACCTAGG	17280
AAGTAAATGT GTAAGAATCA CAGTAAAAA TGCTCTCCG TCTTGAGGA GCATTTCTTT	17340
TTATCAACGA AATCAAATA GCAAACATG AACTAGCCT CAGGTAACT GTGAGATTAT	17400
AGGTAGAGAG GTTGTATCAG CAATATGTGT CTGTCAAATT TAGTGACAAA GGTAGTAGAA	17460
GAAAGATAAA GAAATAAATC AGCTTCAGTA GGTATCTGGA AAATTTGATT TTATAGAGAA	17520
GCCTTTTGTT ACAAACCTCA TATACTATCA ATAAATAATA TTATAGAAGC AACAATAATT	17580
ATAATTCAC CTATCTGCAT CATTCTATTT CGAACTCTAA ATATATGTTC TATCAAAAAT	17640
ACTTGGAACA CACACATTAT AGGAATTAAC GTTTTTGAAA TTGAAAAATA TCCAAATAAA	17700
TAAACTATAA ACAACAAAA TAGAACTATG TTATATTTCT TATTCAAAAC ATTCTCCCT	17760
ATATATTTTT GATTACCAAT CTTAATCATT TACAACATA TTCTAACAAA CTATAAAAGC	17820
GTTTGTGCGA TTGAATTTAT CAAGCAAGCG ACCAACCAGT TCATCTTTTT TCTATTTCTG	17880
CCAATATGCG TGACAGGTAA TAATGATAGC CAAAAATAGC AAGAGCAAGC AAGACGATAA	17940
GAGCTCCTAC TCCCAAGCTG ATGGCAAGGA TAGGGGAGAG AGACTGAACC AAGAATATGC	18000
TCCCAATTAC AAGGGCCATC AGGATTGCAC TATAAATAAA CAATAAACT ATGGCGAC	18060
TGCCATTGA ACGATTACAC AGGTCCGTAA TGCTACTCCA ATTGGTTGAC AGATTTTTAA	18120
CGTCCTTAAA GTAATGGTGG CAAGAAAGGA TGACACTGGC AATGATCCAG ACTACAAGAA	18180
GGTAAATCAT CGAAATGATG GGCAAGCCTA GATATAGAGA AAGACCAAGC AAAGTCAGAA	18240
CTGGTAAAAA GGACTGGACA GCATATATAA TCCAAAATTT CACTTTCACA TAACGAGCAA	18300
AGTCAAAGGG TAAACTCTTA AGAAAATCAA CATTTCCTT CTCCAAGGAC AAGGCAATTG	18360
AATGCAGGCT GGTGATATTG TTATTGACAA CTGCTATAAA GAGAGCTATA AAAACAAGG	18420
GTAACCAGTA TGGAGGATGA ATGTCTGGAA CTATCTGAGA ATCTCGGATT TTGGAAATCA	18480

693

GACCGATCAT CATGAGATAA GGAAGGAAAG CACTTGTAAG AAGCACTGTA ATCACGCCAG 18540  
 TCCCCTGTCC CAAGAGGGTG AGGTGGTAGC GTAAAACCAT GCGAAAAAAT CCCTTTTGTAG 18600  
 TGGTTGAAAT TCTCTCCTTG CTGCGACGTT CTTTTTTGAC CTTCTCCTCA CTATTAAGCA 18660  
 GGATCACGTC ATAAAAACGA GGAAGGACCT TCTTTTGGT CAGATAAAGC AGGAAGAGAG 18720  
 TTAGTCCTAT CCAAGCGAGC AGACCCACTA AGGCTTCTGT CGAAAAAGGC TCCACTGCTA 18780  
 TTTTGTAAGA GATATGAAGA GGATAAAGGA GAAATGGAAT GTCTCTAACT TTGTCAACAA 18840  
 TACTTCCAAA AGTCGACTGA AGAAAGAAGA TAAATATTAA AGGTATGAGA ACTCCTATCC 18900  
 CAATCATCAC ATTCGAAAAA ATAGACTGAT ACTTTCTGAA GACCCTAGTT TGAGCCAAGA 18960  
 AATGCACTGC CACTACCATC ACTAGAGCCA CAGAGACAAA TAATAAGGTC AAGGACAGTA 19020  
 GCATCAAAGG CAAACCCAGC CATAGAGAAG GAGCTAGCCT AATGTAGAGG ACCAGAAAAT 19080  
 AAGCTAGGAT TGGTACAATT CCAGTTAGAG CTGGCAAAAG GACAGACAGT CCTTTAGCAA 19140  
 TTATAATCTC TGATTCTTTA AAGGCATAGG GCCTATACGA TACCAAATCC TTACTCTCAT 19200  
 AAAAGACATT GTAAAAGGCC GTTAAAGAAG TTGAAAAGGC AATCACTAGT AAAATAGCAA 19260  
 TCATCGAGCT AAAATAAATA GGTATTTTCT CAAAAGGAAA ATGAATGGCT ATATTACTAA 19320  
 AACAGATGAT CATCAAGAGA CTGGAAAAAA TGTAAGAAGT TAAGACTCTA GCGGAAACAT 19380  
 TTACTTTTTT 19390

## (2) INFORMATION FOR SEQ ID NO: 87:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18436 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

CCGAGCGTCG TTACAGACTT TATCAAGATT GGACGCAAGA AGAAATTCAA CATATAAAGG 60  
 AAAATATGGC ACAATCTCCA TGGCATACTC ATTACCATGT TGAGCCAAAA ACAGGACTTC 120  
 TCAACGACCC AAATGGCTTT TCTTACTTTG ATGGCAAGTG GATCCTCTTT TACCAGAATT 180  
 TTCTTTTGG TGCAGCCAC GGTTTAAAAT CTGGGCACA GCTAGAAAGT GATGATTGTA 240  
 TTCACTTTAA AGAACTGGA ATCAAAGTTT TACCAGATAC TCCATTAGAT AGCCACGGTG 300  
 CCTACTCTGG TTCTGCCATG CAATTTGGCG ATAATTATT CCTATTTTAT ACAGGAAATG 360  
 TTCGCGATAA AACTGGATC CGTCACCCAT ACCAGATCGG TGCTTTGATG GACAAGGAGG 420

694

GTAAGATTAC	AAAGATTGAC	AAGATCTTGA	TTGACCAGCC	AGCAGACTCT	ACTGACCACT	480
TCCGCGATCC	ACAAATTTT	AAC TTCAGG	GTCAATATTA	TGCCATTGTC	GGCGGACAAG	540
ACTTGAGAGAA	AAAAGGTTTC	GTTCGTCTCT	ACAAGGCTGT	CAATAACGAC	TACACAAACT	600
GGCAAGCAGT	TGGCGACCTT	GACTTTGCTA	ACGACCGTAC	TGCCTACATG	ATGGAATGTC	660
CTAATTTGGT	CTTTGTAGAG	GAACAACCTG	TCCTTCTCTA	CTGTCCACAA	GGATTGGATA	720
AGAAAGTTCT	AGACTACGAT	AATATCTTTC	CAAATATGTA	TAAGATCGGG	GCTTCCTTTG	780
ACCTAAAAA	TGCCAAAATG	GTAGATGTGT	CTCAACTTCA	AAACATGGAT	TACGGTTTCG	840
AAGCCTATGC	AACTCAAGCC	TTCAACGCTC	CTGATGGGCG	TGCTCTAGCA	GTTAGCTGGC	900
TTGGTTTGCC	AGATGTTTCT	TACCCATCTG	ACCGTTTTGA	CCACCAAGGA	ACCTTCTCTT	960
TGGTCAAGGA	ACTCACTATC	AAAGACGACA	AGCTCTACCA	GTATCCAGTC	GCTGCTATTA	1020
AGGACCTTCG	TGCTTCTGAA	GAAGCCTTCT	CAAACCGTTC	CCAAACCAAG	AACACTTACG	1080
AACTTGAACT	CAACTTGGA	GCTAATAGCC	AGAGCGAGAT	TGTCTTACTT	GCTGATAAAG	1140
AAGGTAAGGG	ACTTCAATC	AAC TTCGACC	TTGTAAACGG	TCAAGTAACA	GTGGATCGTA	1200
GCCAGGCTGG	AGAACAGTAT	GCCCAAGAAT	TTGGGACAAC	TCGTTCTTGC	CCTATCGAGA	1260
ATCAGGCTAC	TACTGCTACA	ATCTTCATCG	ATAACTCTGT	CTTTGAAATT	TTCATCAATA	1320
AAGGAGAAAA	AGTATTTTCT	GGTCGTGTCT	TCCCACATGC	GGACCAAAAT	GGTATCCTGA	1380
TTAAATCTGG	AAACCAACT	GGAAC TACT	ATGAATTAGA	TTATGGTCGC	AAAACTAACT	1440
GATGTCGCCA	AACTTGCAGG	CGTCAGTCCT	ACTACCGTTT	CTCGGGTTAT	CAATAAAAAA	1500
GGGTATCTAT	CTGAGAAAAC	CATCCAAAAA	GTCAATGAAG	CCATGCGAGA	ATTGGGCTAT	1560
AAACCCAACA	ACCTGGCTCG	TAGTCTGCAA	GGAAAATCAG	CTAAGTTAAT	CGGCTTGATT	1620
TTCCCCAATA	TTTCCAATGT	TTTCTATGCA	GAATTGATTG	ATAAATTGGA	ACACCAACTC	1680
TTCAAAAATG	GTTACAAGAC	CATCATCTGC	AACAGTGAAC	ATGATTCTGA	GAAGGAACGC	1740
GAATACATCG	AAATGTTGGA	AGCCAATCAG	GTGGACGGCA	TCATTCTTGG	TAGTCACAAC	1800
CTAGGAATCG	AAGACTACAA	TCGTGTGACA	GCGCCGATTA	TTTCCTTTGA	CCGAAACCTA	1860
TCGCCAGACA	TCCCTGTCGT	CTCCTCTGAC	AACTATGCTG	GTGGGGTTCT	TGCTGCCCAA	1920
ACCTTGGTCA	AGACAGGTGC	CCAGTCTATC	ATCATGATTA	CAGGGAATGA	CAATTCTAAT	1980
TCGCCAACCG	GACTGCGCCA	CGCTGGTTTT	GCATCCGTAC	TCCCAAAAGC	TCCTATTATC	2040
AATGTTTCCA	GTGACTTTTC	TCCCGTCAGA	AAAGAAATGG	AAATCAAGAA	TATCTTGACC	2100
CGGGAAAAAC	CAGATGCCAT	TTTTGCTTCG	GATGATTTGA	CAGCTATTCT	GGTCATTAAA	2160
ATCGCTCAAG	AATTGGGCAT	TTCTGTCCCA	AAAGAGCTCA	AGGTCATCGG	CTATGATGGG	2220

695

ACCTACTTTA	TCGAAAATTA	CTACCCTCAA	TTGGCTACTA	TCAAGCAACC	TTTGGAAGAG	2280
ATTGCTTGTC	TCACTATTGA	TCTTCTCTTG	CAAAAGATTG	AAGGCAAGGA	AGTCGCCACA	2340
ACTGGTTACT	TCTTACCAGT	TACGCTATTA	CCAGGAAAAA	GTATTTAAAC	ACAAGAAAAC	2400
TCAGACCGAT	TCGTCTGAGT	TTTTATGATC	TTAAATTTTC	GAGATAGCGC	TGGGCTGTCT	2460
CTAGGTTAAA	GGTTTTATCT	GAGATGAGGC	GCTCTACTAG	GGGAGCAACT	TCAGATTAC	2520
TAGCCCCAGC	TAGGAGAGCT	AGGGATTGG	CCTGTAGTTT	CATGTGGCCT	TGCTGGATGC	2580
CCGTACTTAC	CAAGGCTTTG	AGGGCTGCAA	AATTTTGAGC	AAGACCGATG	GACACGATAA	2640
TCTGGGCTAA	TTCTCTGGCA	GAAGGATTTT	CTAGTAGATC	ATGACTGAGA	ACTACACGTG	2700
GGTTGAGGCC	GATAGAGCCA	CCCTTAGTCG	CTACAGGCAT	GGGCAGGGTC	ATCTCACCGA	2760
CCAAATCTTC	TCTTTCAAGG	TCCAGCGTCC	AGCAGCTAAG	ACCTTGATAG	CGTCCATCTC	2820
GACTGGCAAA	GGCATGGGCC	CCAGCTTCGA	TGGCAGGCCA	GTCATTACCA	GTGGCAATCA	2880
AAATCGCATC	AATACCATTA	AAAATTCCTT	TATTATGAGT	AGCAGCTCGG	TAAGGATCAG	2940
CCTGCGCAAA	CTGACTAGCC	AACGCAATTT	TCTCCGCAAT	CTCTCGTCCT	TGATCCTTTT	3000
GGCGGCTCAA	GTAGCGAAAG	GCGATGCGAC	AGCTTGCAGT	CACCAGAGAA	TCGGTCGCGT	3060
AGTTGGACAG	GATTCCCATG	AGACTCTGTC	CCTGACTGAG	TTCTTCTAAG	ACTGGTTTCA	3120
AGGCTTCCAG	CATGGTGTG	AGCATATTGG	CACCCATGGC	TTCTTGGGTA	TCGACATGAA	3180
TATAACAAC	GAGAAAGTCT	GGTTCGCCTT	TTATCTGCTC	GACATGCAGA	TCACGCGCCC	3240
CACCTCCACG	TTTAACGATA	GAAGGATAGG	CTTGATTGGC	AAGCTCCAAG	AGCTCCGCTT	3300
TCTTGCTGGC	AATCTTCTCT	TGCGCTAGTT	TAGGATTAGC	AACTTGATAA	AGGGCTACCT	3360
GCCCAATCAT	CTGTCGCTGA	TGGACTTGTG	CAGTAAAACC	ACCTGCACGC	TTGATGATTT	3420
TGCTGGCATA	GCTGGCCGCC	GCAACCACAG	AGGGTTCTTC	TGTCACATAG	GGAACGGTGT	3480
ATTCCTGACC	GTTGACAAGT	ACCTCCGGAA	CCAGTGAATA	AGGCAGAGAA	AAAGTTCCCA	3540
CTACATTCTC	ACTCAGCTGG	TCTGCCACAG	TCACGCTCAT	CTGTTCATCC	TTCTCCAGAC	3600
TAGCTTGTCT	CTCAGGACTA	AGGAGCGCCT	GAGCTTTTAA	CAGCTCGAGG	CGCTCTTGGT	3660
ATGATTTTTT	AGAAAATCCA	TTCCAACCTA	TCTTCATTAT	TTTTCAACCT	TGCTATAACG	3720
GCGTTGGTGG	TCGAGAATTT	CAACCAAGGC	AAAATCTTGA	TTTTCATAGC	CAGCAAACCTG	3780
GGCAGAGTTA	GTTTCATCCA	AGTTTACTTC	CTCAAAAAAG	ACCTTTTCAT	AGTCTGCAAC	3840
GGATAGGGCA	GTTGTTGGT	TGAGCTTGT	CAAACGGTCT	TTATCCAAAT	AAGCTTCATA	3900
TCCTTCAACC	AATTCACCAC	TGAAGAACTC	AGCCACAGCT	CCACTTCCGT	AACTATAAAG	3960

696

GGCGATTTTA	TCCCCAGCTT	TCAAGCTATC	TGTATTTTCC	AAGAGAGACA	AAAGTCCAAG	4020
GAAAAGTGAA	CCTGTGTAGA	TATTCCCCAC	CTTTTGGACTG	TAGAGAATAG	ACTGGTCAAA	4080
ATGCTTTTGT	AAGAGGTCTT	TTTCTCTTGT	AGGCAGGCTC	TTATCCATGA	TTTTTTTCAA	4140
GCCTTTTAGC	GCTAATTTAG	GATAAGGCAA	GTGGAACAA	ACAGCCGCAA	AATCATCCAA	4200
AGTAAGCTGG	TAGCGTTTTT	GATATTCAAG	CCAAGTCGTT	TTCAAACATAT	CCAAGTATTG	4260
TTGGGTAGAA	TAGACACCAT	TTACATAAGG	AGTTGTCGAG	TAATTTGGTC	GCCAGAAATC	4320
CATGATGTCA	CGGGTCTGAG	CTACATTGTC	ATTATTAAAG	GCCATCATGC	GTGGATTTTG	4380
TGTAATCAAC	ATAGCTACAC	TTCCAGCACC	TTGAGTTGGT	TCTCCTGGAG	TTTCAATACC	4440
GTATTTGGCA	ATATCACTGG	CAATGACCAA	GACCTTGGAC	TCCGGAGAAT	TTTCCACATG	4500
CAATTTGGCA	TAATGGAGGG	CAGCAGTCGC	TCCGTAGCAG	GCTTCTTTAA	TCTCGAAACT	4560
ACGAGCAAAG	GGCTGGATGC	CCAGCAAGCC	ATGCACAAAG	ACGGCCGCGAG	CCTTACTCTG	4620
GTCAATTCCT	GACTCGGTCG	CCACAATGAC	CATGTCAACT	TCTTGTCTTT	CTTGCTCAGT	4680
TAAAATAGAG	TCAC TAGCAC	TGGCCGCCAA	GGTCACGATA	TCCTCAGTTA	GGGGCGCAAT	4740
ACTCAATTCC	TTGAGTAAGA	GTCCCTTACT	TAATTTTCA	GGGTCAATTC	CCCTCGCTTC	4800
TGCTAAGTCT	TGTAATTTCA	AGACATATTG	ACTGGTCGCA	AAACCAATCT	TATCAATACC	4860
GATTGTCATA	TTTACCTCTG	TTTTATCATT	CATGTAAAAA	ATCGTTCTAT	ACTATTTTAT	4920
CACAAATGGC	AGTAAAAGAG	AGAAAAAGA	CTTGATTACAC	CAAATCAAGC	CTCTTATTGG	4980
TCATCATTTT	AAAGAATGAT	TAGTTGCTAG	AGAGTTCACC	GATATAAGTA	GCTTTATAAG	5040
CTCCATTCAC	AGTTATCAGC	TCCTGGAGGA	TCAAATTTCC	TGAGTAAGTC	CTTCCCATCT	5100
CATCTACAAA	TTTTTGATAA	AACTGACTGG	TCGGAATTTT	TCTGACATCC	TTATCAAATG	5160
TCTTATCAAG	TGTTTTACTA	ACCTTCTCAG	CAATCAATTG	ATGCTCTTGC	CATCCACTTT	5220
GAAACTCTGA	GCCCCGAATA	GAAACCATGA	CTGGGATAAA	CAACAAGGTC	AGTAGATTTA	5280
CAGACAATAA	GGAAAGTAGT	AGACTTCCTG	CAAACTAGA	ATCCTAGTTC	ATGATTGATA	5340
ATACCAGCAA	TCAAATTCAT	TCGTAATCCG	AAGCGTTTAC	GATGATTTTCG	ATAGGTGTGT	5400
GAAAACATTT	TAAACGTTTT	TACTTTGGCA	AAGATGTTCT	CAACCTTGCT	TCTCTCCTTA	5460
GATAGCGCAT	GGTTACAGGC	TTTATCTTCA	GCTGTTAGCG	GCTTGAGTTT	GCTGGATTTA	5520
CGTGGAGTTT	GTGCTTGAGG	ATATATCTTC	ATGAGCCCTT	GATAATCACT	GTCAGCCAAG	5580
ATTTTACCAG	CTTGTCGGAT	ATTTCTGCAA	CTCATTTTGA	ACAACTTCAT	ATCATGACTA	5640
TAGTTCACAG	CGATATCCAA	AGAAACAATT	CTCCCTTGAC	TTGTGACAAT	CGCTTGAGCC	5700
TTCATAGCGT	GAAATTTCTT	TTTACCAGAA	TCATTCGCTA	ATTGTTTTTT	AGGGCGATTG	5760

697

ATTTTACTTT	CCGTCACATC	AATCATTATC	GTGTCCTCAA	AGCTGAGAGG	AGTTCTTGAA	5820
ATCGTAACAC	CACTTTGAAC	AAGAGTTACT	TCAACCCATT	GGCTCCGACG	GATTAAGTTG	5880
CTTTCGTGGA	TACCAAAATC	AGCCGCAATT	TCTTCATAAG	TGCGGTATTC	TCGCACATAT	5940
AGAAAGCGTT	ATCAATTTAT	TTATCTCATT	TTTCAGAAAA	TTCTTTTATT	TCTGTAAAGT	6000
CTACGATACT	CGATGTGTTT	TTATATAATG	ATAGAGTCTG	AGAATCACTG	TTCCGCTAGC	6060
CATTCCAATA	GAGATTACCA	AAGCCAACAT	GACAACCAAG	GTCGCACTTG	CCAGTGCTTT	6120
ATTATAGTCC	CCTGTCACAA	AAAAGGCAGT	TGTTCCGGTAG	GAGAGATAAC	CTGGAACCAG	6180
CGGTGCCAAA	ATGGCCAAGA	TAAAGACCAC	AGCAGGTGTC	TTATAAAGAA	TACTTAAAT	6240
CTGGCTGACA	CAAGAACCAA	TAATGGCTGC	AATGAAGGTA	GCTACAATGA	CATTGGTCGG	6300
TTCTTGAGC	AAGAGATAGA	TTAGCCAGAC	AGTCATGCCC	AAAATCCCTC	CAGGTAAGAG	6360
CATAGACCGT	TGCACATTGA	GTACGATTAA	AAAAGTGATA	ATGGCAAGAA	AACTTGCTAC	6420
TGCTTGTAAT	AAAAAGGTTG	TTAGTGTCAT	ATTAGTTCAT	CAATACCAAG	GCGACAGAAG	6480
TTCTGCCCC	TAAAGCGAGG	GTAATGAGCA	GGGATTCAAA	CATCTTACTC	ATACCAGAGT	6540
TTATGTGGTT	GGTCATAATA	TCACGGACCG	CATTGGTCAA	GGCAATACCT	GGTACAAACG	6600
GCATGACCGC	ACCAGCTATA	ATCAAATCTG	CCGTTGAAGG	AAAACCTGTG	TAGCGAGCCC	6660
AAAAGTGGGC	AATTATCCCA	AAGACAAAGG	CTCCAGCAAA	GGCTGTCACA	AAGGGAATTC	6720
GGATAAATTT	TTCCACATAG	AGGGAAAAGG	CAAAACCAAA	TAAGGTCGCC	ACTCCTGCCC	6780
CAAGTGCCTC	GTAGATATTT	CCGCTAAACA	TAAGTAAAA	GAAAGGAGCA	CTAAAGGTCG	6840
CAGCCAGAGT	TACCTGCAAC	TTAGTATAGG	GAAGGGGTTT	GGCTTGCAAG	GCCGTCAATT	6900
GCTTAAAGGC	TGTTTCTAAG	TCAATCTGCC	CCCCAACTAG	CTGACGAGAA	ATCTGGTTCA	6960
CATCGCAGAC	TTTTTCGATG	TTATAAGAAG	AGGAGGTCAC	GCGCTTCATG	CGCAAATATT	7020
GGTATTTTCA	ATAGAGAAAA	AGATAGCGGC	AGGCATGGCA	AGGACATTGC	AATCCACAAT	7080
CCCTGCGAA	TGCGCGATTG	GAATCATGGT	ATCTTCTACA	CGATGGATTT	CTGAGCCACT	7140
TTTAAGGAGA	ATAGTCCCCG	CTAGCATAAT	CACATCAATG	ACGGCATTTA	ATTCTTTTGA	7200
TTCTTCCATG	CTTTCCTCCT	TTTATCAACT	CCCTCTATTC	TATCACAAAT	CCGGACTCAA	7260
AAAAAATCTT	TGCCATGAAA	TCATGACAAA	GATTGATTAC	TCATTTTGAT	TATCCATCTG	7320
CTTTTAAGGA	GTAGCTGAAG	TTGTTTTAGG	TTTGTAGATT	GAAATCTTGA	CTCTAGTCTT	7380
ATTGAGGTCT	ACCTTTTCAC	CTGCTCTAGG	ACTTTGTTCA	ACAACCATGC	CTTCTGCACT	7440
ACCTGCAGGC	GCTGTCGTCA	CTTCTACAAC	TTCTATATTA	GCTTCCTTAA	TCCCAACAAT	7500

698

TTGAATCAAA	TTGTTCTTAG	TAAACTCCAA	GCTAGAACCA	ATGTAACCTCG	GCATGGCAAC	7560
ACTTGTAAC	TTTTTAGCTA	CTGTCAAGAC	AATTTGAGTA	GGTTTACTCA	CATCATAAGT	7620
CGTTCCGGCA	CCTGGACTTT	GTTTCATAAT	CGTTCCTGGT	TCGCTTTCGC	TGGACTCTTC	7680
TTCTCTATC	TTAATCAAAT	TCTCAGGAAC	CTTCTTCTGC	TTGAGTTCTG	AGATTACTTC	7740
TGTAGAGTTC	CGTCCAATAT	AGTTCCTTAA	TTGAATCGTC	GTAGCTTTTT	TAGCTACTGT	7800
CAAAACAATT	TGAGTTGCCT	TGCTCAAGTC	ATAGGTCGTA	CCTTCTGGTA	GACTTTGCTT	7860
CAGGACCGTT	CCAGCCTCAC	TCTCATTCGA	CTCTTCTTCC	TCAATTTTAA	TCAAATTATC	7920
TGGAACCTTT	TTCTCTTTTA	ATTCCGCAAT	GACATCAGAG	GATTTCCGAC	CGACATAATT	7980
ACTAATTTGG	AAAGATTGCT	TGCCTGATGA	GACAACCAAA	TTGATTTTCG	TTCTTCTTTT	8040
TCGACCAGTT	CCAGCGCCAG	GATCTGTACG	GATAATCCGC	CCTTCTTCCA	CCTTTTCACT	8100
AGCCTCTGTC	TTCTCCTCAC	CAATCTCAAA	ATTGGCTTTT	TTGAGCGTTG	CCTTGGCCTC	8160
TGCAACTGTC	TGACCTGCCA	CATCTGGAAT	GGCAATGGTT	GCAGGAGTTC	TGGATAGTAT	8220
CCAATAAGA	GAAGCTGCCA	CCAATACAAG	GCTGGCCAAC	AAAATCAGGT	AACGCATCTT	8280
AAATCTATGT	TTTTTCGGTG	CTTGTGGTTG	GTAAGTTTCC	TCTGTCACAG	CCTGGCTTGG	8340
GTTTTTGATT	GATTTGTGTT	CTGTTTGCGC	TTGAACCTTA	GGAATAGATG	TCAAGGTACT	8400
CTGAGAAACC	TTCCGGCAAGG	TCTTGGTATC	TGCCTTGCTC	GTTTCATCAA	AGATTAACTT	8460
ACTTTCATTT	CTACGATTGT	AGGACAAGCT	ACTAGACAAG	TCCACATACA	TCTCTGAAAC	8520
CGAGCGGTAG	CGATTGGTCA	ACTTTTTAGC	AGTTGCCTTG	ATAATAACAT	TTTCTAAAGC	8580
CTGAGGTACA	GATGGATTTT	CTGCAATAAC	GGACGGCAGG	GGTTTCTGGA	AATGTGGAG	8640
GGCAATGGTC	ACCGCGCTAT	CCCCGTCATA	AGGGATATGG	CCTGTCAGCA	TCTCATAGAA	8700
AATAATCCCC	ATGGCATAGA	TATCACTCTG	CACAGTCGCC	TTCGAACCAC	GCGCCTGCTC	8760
TGGTGACAAG	TAATGAAC	AGCCCAACAT	CGAGTTAGTC	TGGGTCAGAC	TTGTCTCTGC	8820
AAAGGCTACA	GCAATCCCAA	AGTCTGTGAC	CTTGGCAGTC	CCATCTGGTG	TCAAGAGGAT	8880
ATTTTGAGGT	TTCAAGTCCC	TGTGAACAAT	TCCTCGAGTA	TGGGCCAAGC	GCATAGCCAA	8940
GAGAATTTGT	CCCATGATAC	GGACTGCTTC	TTCATTAGAA	AGAGGATAAT	GTTCTCTGAT	9000
ATAGCGTTTG	AGGTCCAGTC	CAGCCACATA	CTCCATAGCT	AGGTACTGTT	GACCGTCTTC	9060
CTCGCCAATA	TCTGTTATCC	GAACGATATG	AGGATGGTCT	AGATCTGCCA	TAGCTCTCGC	9120
TTACAGCTGA	AAACGAGCTA	CAGCTATCGG	GTCCGTCTGG	TAGTTGGTCC	TCAGAACCTT	9180
CACTGCCACT	TCTTCCCCAT	CTAAGATTAA	GTCTTTGGCT	AGGTAGACAT	CCGCCATACC	9240
TCCTCGACCA	ATCTGTTTGA	CAATCCGATA	GCGTCCGGCA	AAAATCTTGC	CGATTTGAT	9300

699

CATTCTGCAT CCTCCTCGTT CATAGAAACA AGGGCAACCG TAATGTTGTC TAAACCTCCT	9360
GCATTGTTAG CAAAACGAAC AAGTGTCTCC GTTTTATCTG CTAAAGGAAT ATCACTGGTT	9420
ACAATATCAC GAATCTCACT GCCTGAAATC ATGTTGGTCA AGCCGTCACCT ATTGAGCAAG	9480
AGATAGTCAC CTGACTCAAG GATAACTGTC CCAAAATCAG GCTGAATTC ATCTTTTTC	9540
CCAATAGACT GGGTGATAAT ATTTTTCGTC GGATGAGCTT CTGCCTCTTC TGGTGTCAAT	9600
TGACCAGCCT TGAGCAATTC ATTAACCAAG GAATGATCGC TCGTCAACTG ATGGTATTCT	9660
TCTCCACGAA TCAAGCCGAT ACGCGAATCA CCAATATGAG CATAGATAGC CTGATTATCA	9720
ATAATAGCAA GGACTTCCAA AGTAGTTCCC ATGCCTCTGT AAGCTTCATC CTGACCAAGC	9780
TGGTGAATCT TTTGATTTTC AATTTCCTAGG TAATGGGCGA ACCATTCACG CACTTCATTG	9840
ACTGTATCGA TCTGGGTATC AACCCAAGCT ACACCCAGGT CTGTGACCGC CATTTCACTA	9900
GCGATATTCC CTGCGCGATG ACCTCCCATC CCATCAGCTA AAATAATCAT GTTACGTCCA	9960
GCTCTATTGA CATAGTGGTT GACATAGTCT TGGTTATTTC TCGTTTCTG ACCAACATCT	10020
GTTAATAATG AAATTTCCAT GTGTCAGTTC CTTCCTAATC CGATATCTTG CGAAATTGAC	10080
TGATGAAGAA TCCATCACTT CCATACAATT CAGGTGTAAT GAGGATACAG CCGTCTTTCA	10140
TGATATCCTT ACATTCATGT TCTAGTTTTC CCTGCTCGAA CTCGGGATGA CTCTCTAAAA	10200
AGGCCTTAAC GACTTGAAAA TTCTCCTCTG AGACGATAGT GCAGGTGCTA TAAGTTATTA	10260
TACCACCTTT GCCTAGTATT TGACAAACAC TACCTAATAT TTCTAACTGA ATTCCTGCA	10320
AGGACGCGAA ATCTGCCGTT TCTTTATTGT ATTTGATATC TGGTTTTTCG CGCAAAAGAC	10380
CGATTCTGA ACAAGGAGCA TCCACCAAAA TCTTATCAAA GGAATCCTGG TCAAAAACT	10440
CATGCACCTT TCTGGCATCC AATTTTTCGAG TTTGAACCCG ATCTTCAACT CCCAGACGTT	10500
GGGCATTTTC TTGAATTAAA TCCAACCTGT GGTGCTACAA GTCCAGAGCA GTAACCTGAC	10560
CTGTCGTAAG ATAAGAGGCT ATATGGGCTG TTTTCCCACC TGGAGCCGCA CAGGCATCAA	10620
GCACTCGCTC ATCACCTTGT AAATCAAGCG TCGGAGCAAC CAGCTGACTG GACTCATCTT	10680
GGATGGTAAT GGCTCCATCC GCAAACAAAT TATGCCCTGC AAAATGCCCC TGCTCCTTAA	10740
CCAGACCAGT GGTGCTAAA AGGGAATTAT TCGCCTCCAA CAAGGCTTGG ATTCCTCTT	10800
TTCGACTTAG GTCTGTTACA CGAATACTGG CTTTGTTCG CACTAACAGG CTTTCAAAGA	10860
TGGCTTTTTC TCTCTCCTCT CCGTATTCTT CCTTGAGTTT GGCAACTAGC CAACTGGGA	10920
GAGAATAGGC AATGGAGTCA CGCTTGTTTT TTCGCTTGAT GCTAGCAATA TCTGGCCAGC	10980
CTTCACGCAA GATACGGCGA AGGACAGCGT TGACCAATTT TTTTACGGA	11040

700

GT'TTGCCAA	TTCCACTGCT	TCATTAACCA	CAGCATGATC	TGGAATCTTG	TCCAAATAGC	11100
GGAGTTGGTA	GGCACTCATG	AGAAGAAGGA	CATAGAGCCA	GCTGTCTAAC	TGGTCTCTGT	11160
CTTCGATAAA	GTGGGATAGG	TACCATTCCA	GAGTCAGTTT	ACGGGCTACC	GTTCCATAGA	11220
CCAGCTCGGT	CACTAAGCCC	TTGTCTGCTG	CCAAAAGTTG	ACTTCCCTTT	AGATGCTTAT	11280
TTAAGGCGAT	ATTTGAATAT	GCTTGGTTCA	CAAAAACATC	CTCTAGCACT	GCTAGAGCTA	11340
AACTTCTAGC	CGTTTCTACT	TTAGTCACCA	AATCGTTCTC	CTACAGTCAA	TGTACGTCCA	11400
ACTCCGTTGA	GGAAGGAAGC	AATGTCCATC	TTAGGCTTAC	CAGCTGGCTG	CAC'TGT'TTG	11460
AGGGATAGAG	CCCCTTCAGC	CGTTGCGACA	ATCAATTCTT	TCTTGCCGAT	AGAGAGAATC	11520
TCACCTGGAT	TTCCCTGACC	TTCTACTGGT	AGGGCTTCAT	AAATCTTAAA	GCGGTCGCCC	11580
TTAAGGAAAG	TATGGGCAAC	AGGCCAGGGG	TTCATTCCAC	GAATTTGGTT	AAAGAGTTGA	11640
CGATTGGTTT	TGTTCAGTC	CAGTTTTTCT	TCCTCTGGCT	TTATATTTGG	AGAGAAGGTA	11700
ACCTGACTCG	TATCCTGCGG	TTCAGGTTTG	ATATCACCAG	CAATATAGGC	AGGCAGAGTG	11760
TCCAAAAGCA	AATCACGACC	AACTAGCGCC	AATTTTTCOA	ACAAGGTGCC	AACATTGTCC	11820
TCATCTGTGA	TCGGAATGCT	GCGACGAGAA	ATCATATCTC	CTGCATCCAT	TTCTTAAACC	11880
ATTTCCATGA	TGGTCACACC	AGCTTCCTCA	TCCCTTGAA	TCAAGGCATA	ATGGATAGGC	11940
GCACCACCAC	GGTGTCTAGG	AAGGAGGGAG	GCATGAACGT	TGACAGCAAA	GTCCATGCTA	12000
TCAAGGAGTT	TGCTTGGGAG	AACTGCCCA	AAAGCAGCAG	TCACAATTCC	ATCTGCTCCT	12060
AGCTTCATAA	GATCTTCCAT	CTCTGGACTT	CCAGATAAAT	TTTCAGGTTG	GATAGATAGAT	12120
AGTCCTGCTT	CCTTGGCAGC	CTGCTTGACT	GGGGTTTCTT	GGATAACTTT	TTTACGACCA	12180
ACAGCACGGT	CTGGCTGGGT	CACAACGGCT	AGAATTTTCGT	AACGGTCATC	TGTCAAAAGT	12240
CCTTTTAAGA	CTGTTGCTGA	AAAGTCGGGG	GTCCCCATAA	AGATTAGTTT	TGTCATATCT	12300
TCTCCTTCTT	ATAAAAATTG	CTGCGGCTCA	TGGTCAATGC	TGAGACGGAG	CTCACTATTT	12360
TCCCGTTCTT	GAGTCAAGGC	TAAAACCTGG	TTGAGGGTCG	ACCCAGCTC	ATCTTCTAAA	12420
CGGTATTTAA	TTAAAATCTG	GTAATGATAG	AGGTGTGGG	TACGGGCAAT	CGGTTTGGC	12480
GTGGCCCCA	GAATGGGACT	GGTCTCTGAC	AAGCCTGACC	GCAAAATGTT	CATGACTTCA	12540
TAGGCACGTT	TGAAAACCTC	TTCTTCTTTC	TTGTGAGAAA	GGGTAATACC	AATCGTGAAA	12600
TAGTAAGGTG	GATAGCCGAG	TTGTCGTCTG	ATTCCCATTT	CATAGGCATA	AAAGCCTTCG	12660
TAATCTTGAT	CCTTGGCAAA	TCGAATAGCA	TAGTGCTGCG	GATTGTAGGA	CTGTATCAAG	12720
ACTTGACCTG	CCTTTTCAGC	CCGACCTGAT	CGACCTGCCA	CCTGAGTCAA	GAGCTGGAAG	12780
GTCTCTCAG	AAGAACGGAA	ATCAGGCAGA	TTCAAGGCCG	TATCCGCATT	TAGAACTCCG	12840

701

ACTAGGGTAA	CATTGGGAAA	ATCCAAACCC	TTTGCAATCA	TCTGAGTACC	AAGTAAAATA	12900
TCCGCTTCCC	CTCGCCCAA	CTGGTCAAGC	AAGGCTTGGT	GACTGCCTTT	CTTTCGAGTC	12960
GTATCCACAT	CCATCCTCAG	AATGCGAGCT	TGGGGAAAGA	GTTCTGCTAG	CTCATCATAA	13020
GCCTTCTGAG	TTCCCGTCCC	ATAGTAACGA	ATACTGCGGC	TCTTACAGTT	AGGACAGACC	13080
TGAGGAATAT	CCTTCGAGAA	ACCACAATAA	TGGCAGTTCA	TAGTCTTGGT	ATCCATATGC	13140
AAGGTCAGAG	AAATATCGCA	GTTGGGACAA	GTATCCACCG	TCCCACACTC	CCGACACATG	13200
ACAAAGCTAG	AATAACCACG	GCGATTGAGC	ATGAGAACCA	CCTGCTCTTT	TTTAACCAGA	13260
CGGTCTTGGA	TAGCCTCTAG	CAAAGGAGGC	GTAAAGTTTG	ACGTCTCATT	TTGTCCGATA	13320
TAGTCTCGAA	AGTCAATCAC	TTGAACCTCA	GGGATTGTAG	CCAAAGGATT	GGCACGTGCG	13380
GTTAGACGTA	AGTGTTGATA	GACGCCTTTG	CCAGCACGTG	CCCGGCTCTC	TAAGCTCGGC	13440
GTTGCAGATC	CAAGTACCAG	AGTTGCTTGA	TTATACTGAG	CCCGTAAAT	AGCTACCTCT	13500
CTGGCATGGT	AACGGGGATT	GCTGTCCTGC	TTATAAGCCG	CTTCATGCTC	TTCATCAATA	13560
ATCATGACAC	CCAGATTTTT	CAGAGGAGCA	AAGATAGCAG	ATCTGGCACC	AACAACAACCT	13620
TGGGCATCGC	CACGCTCCAC	CTTGCGCCAT	TCATCATACT	TTTCACCATT	GGATAATCCT	13680
GAGTGAAGAA	TGGCTACCTT	GTCCCCAAAA	CGTGCTATAA	AACGCTCGGT	CATCTGAGGA	13740
GTCAAGGAAA	TCTCAGGTAC	CAGCAAAATA	GCTGTCTTGC	CCTTATCCAG	GGCACCTTGG	13800
ATAATCTGCA	AGTAAACCTC	GGTCTTCCCA	CTTCCTGTAA	TCCCTTGAAG	TAGAAAGGGA	13860
GGTTGAGAAC	TGCCAATAGA	ACTCACAACC	GCATCACGCG	CCTGTCTTTG	TTCTGGATTT	13920
AACTCCAAAG	GTCTACTTGC	TTCAATTCCT	TCAAAATAAG	CAGCCGAGCG	TTGAACTTCC	13980
TTTTGGACTA	TGGTAACAGC	ACCTTGATCC	ACAAAGAAAGT	TGACTTGCTC	TCGCGAGTAG	14040
GACTCTAACA	AGCTAGCCAA	GGAAGCGCTC	TCTGGATGAG	ACAGCAGATA	ATCTCTCAGT	14100
TCCAACCTTT	TCTTGGCAGC	TGTAGAAATC	TCAACACCTT	CTAATTGAGC	ATGGTCAACC	14160
TCATACCAAG	ACTGGGTCTT	GACCTTCTTT	TGATCGACTG	CCTGATATTC	CAGACCAAGC	14220
AGGCCTTTTC	TAGTCAAACG	CATCATTTCA	GCTTGCTTGG	CAAGGTCTAG	TGAAGAAAAG	14280
GCTAGCGAAT	CTTCTGAACC	AAACAGGCGC	ACTCGTTCTT	CCTGACTCAA	GCCTTCCAGA	14340
GGATAGAGAA	TCTTGTGATA	GCTAGAATTC	AGAAACCTTG	GAAGCATGGC	CTTGAGGATA	14400
GAGATTTTGT	AGGAGAAGAC	AGATTTGCGT	AACTCCTCAG	CCAGCCAGAG	TTGTTCTGGC	14460
GTGAGAACAG	GAGAAAAATC	CAGCACCTCT	GCAATATCTT	TTAAATCTTG	CTCCATCTCT	14520
TCTCCATCTG	ATTGGGACTT	CAAACCAAGA	ACAATCCCTT	GAATCAGGCG	ATTACCCTTA	14580

702

CCAAAAGGCA	CATGAACCCG	CATCCCAACT	TCCAGCATTC	CCTCAAATTC	CTCCGGAATC	14640
CTGTAACTAT	AGGGCTGGTC	CGTCTGCATC	AAGGGCACAT	CTACGATAAT	CTTAGCTAGG	14700
GCCATCTTCT	CACCTCCTCC	TTGTCTAGTAC	ATTCTTGCAA	TAGAAAAAAT	AAGATTGAGT	14760
CCCCCAACC	TTAAATTTT	TCACCATCTT	CTTTTCTTT	AGCAATTTGC	TCTTTGATTT	14820
TCTTTTCTTC	TTCTTCTTTG	CGGCGTTTTT	CTTCTTCGAT	ACGGCGACGC	ACTGCTTCAC	14880
GTTTTCTTC	TGGATCTGGG	TGAATTGTAA	CGTTTCCTGA	TTCGATTTCT	TCTAAAGCGC	14940
GAAGAGTTGA	TTTTTCAGAC	TTGAAACCTT	GAGTTGCTGG	GGCACCTGCT	TCCAATTCGT	15000
GGGCACGTTT	TGCTTCCAAG	ATTACGAGTG	AATATTTTGA	AGGAACCTTG	TCGAGCAAGG	15060
TATCAATAGA	GGGTTTAAAC	ATCATTTGCT	TGTACCTATT	TTCTAAATTT	TATCGGGTAG	15120
TTGGAGATTT	TGGTAACATC	TCCTGATAGT	GACCAATGAC	ACGATCCACA	CAGAAGTGTT	15180
CTGCTTCAAT	CACACATTTG	ACACGTTTCA	CAGCTAGGGG	TACCTGATCG	TTGACAATCG	15240
CATAATCATA	CTCACGCATG	AGGGCAATTT	CTTCCTTGGC	CTTTTCGATT	CGTTGGGCAA	15300
TCACTTCTGC	ACTATCTGTT	CCACGACCTA	CCAAGCGATC	TTGCAATTCA	TCCAAATCTG	15360
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GAACTTCAAT	TTCAAGGAAA	ACATCGATTC	CCTTGTCCAA	GGTTTCATTG	ACATAGGTCA	15480
GAGGAGTTCC	ATAGTAGTTA	CCGACATATT	CTGCGTATTC	CAACATCTGT	CCTTGACGAA	15540
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TAATGGCAAA	AAGCCAGATT	ATCCTTTACA	GTCTTTCTAT	CTAGTGTAAC	AAAAAAGCAG	15840
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TCACGGTTAC	CTTGATATTT	CCTGGATAAT	CGAGATTGTT	TTCAATTTTC	TTACGAACTT	15960
TGTGAGCCAA	GATTGTGACT	TTGTCGTCCT	TGATTTTTC	TGGATTGACC	ATGATACGAA	16020
TTTCACGTCC	TGCTTGAAGG	GCAAAGCTAG	TTTGCACTCC	TTCAAAGCCG	TTAGCAATTT	16080
CTTCCAAATC	ATGGAGACGC	TTGATGTAGC	TTTCAAGAGA	CTCACTACGA	GCACCTGGAC	16140
GGGCTGCGCT	CAAGGCATCT	GCTGCAGCGA	CGATAACTGC	TATCACGCTC	TCAGCTTCAA	16200
CATCTCCGTG	GTGACTAGCA	ATCGTATTCA	CCACAACCTG	GGGTTCCCTG	TACTTACGGG	16260
CCAATTCAT	ACCGATTTC	ACGTGGCTAC	CTTCAACCTC	ATGGTCAATG	GCTTTCCCGA	16320
TATCGTGAAG	GAATCCAGCA	CGACGGGCAA	GAGCCGCATT	TTCACCAAGT	TCGCTCGCCA	16380

703

TGATACCAGC	CAACTTAGCA	ACCTCAATCG	AATGGCGCAA	AACATTTTGT	CCATATGAAG	16440
TACGGAACTG	CAAACGTCCC	ATAATCTTCA	TCAAGTCTGG	ATGAAGGTTT	GGCGCACCAA	16500
TTTCATAGGC	AGCAGCCTCA	CCGTATTAC	GAATCTTATT	GTCAATCTCT	TGACGGTTT	16560
TCTCAACCAA	CTCTTCGATA	CGAGCTGGAT	GTATACGACC	ATCTTTGAGC	AACATTTCCA	16620
TAGTCATACG	GGCAATCTCA	CGACGAATCG	GATCAAATCC	TGACAAGGTC	ACCACTTCTG	16680
GTGTATCGTC	GATAATCACA	TCGACCCCTG	TCAAACCTTC	AAAGGTACGA	ATGTTACGAC	16740
CTTCACGACC	AATAATGCGT	CCCTTCATAG	TATCGTCTGG	CAGATGAACT	GTTGAGTTTG	16800
TTGACTCCGC	TACATATTCA	CCAGCGATAC	GTTGCATAGC	TTGAACCAAG	ATGTCCTTGG	16860
CCATTTTGTC	AGAACGTTCC	TTGACCTCTT	GCTCAGCTTC	GCGAATGCGA	CTGGCAATCT	16920
CCCTGGTCAA	GTTTTCTCT	GTCTGAGCCA	AGATAATATC	TCGTGCTTCT	GCCTGAGACA	16980
GCGCACCAAT	ACGCTCTAGT	TCTGCTTCTT	TTTGTCTTTC	GACTTCCTCT	AATTGCTCTT	17040
CACGCGCATC	AAGGTTTTTC	GCTCTATCAG	AAATACTTTG	TTCTTTTGT	TCAAGTGTTT	17100
GTTCTTTACT	CGTCAAATTG	TCGTCCTTAC	GGTCAAGGCT	AGTAGCTCTC	TCTGTCAAAC	17160
GACTTTCGAT	TTGTTTGAGT	TCTTGACGTT	CTGATTTGAA	TTCAGCGTCC	ACTTCTTCAC	17220
GGTATTTTCT	GGCTTCTTCT	TTGGCCTCCA	ATAGTGCTTC	TTTTTTAAGA	GACTTGCTTT	17280
CACGTTTGGC	TTCATTAACA	AGTAAATCCG	CTTCACGCTC	AGCTTGTTCCA	CGTAAATTAG	17340
TTGCTTCTTG	TTCAGCATTT	AAAAGCATCA	ACTCTGCAGC	TTCTTGAGAT	GATTTTCATCT	17400
TAGCTGAGAT	GCTGACATAT	CCAATGACTA	AACCAATGAT	GACGGCAAAA	ACAGCAATCG	17460
CAAGCGACAT	GATTTCCATG	TTTTTACCTC	ATTTTATTGT	TATCCGAAT	GACATACATT	17520
CTTTTACATT	CTACCATAAA	AAAGTGATTT	TCACAAACCT	AAAATAGAAT	ATGTTTGTAG	17580
GAATTTGGAA	CACATTTACC	AAAATAAACT	TGTTGTTTAG	AAATAGTAGT	TTAGTAGAGA	17640
CTTGAGAAAA	AGCCTACCTT	TCAATAGACT	TAGTAATGAT	CTTTAAAGGA	CAAGAAAGCC	17700
ACGCTATCTC	CATCCATCAT	ATAAATCAAG	CGATTTTCTG	CATCAATACG	CCGTGACCAG	17760
GCTCCTTGGT	AATCATATTT	GAGTGGTCT	GGTTTACCTA	TTCCTGTAAA	GGGATCACGT	17820
TGAATATCCT	TGATTAGTTT	ATTGATTCTT	TTTAACGTTT	TCTTATCCTG	ATTTTGCCAG	17880
TAGCAATAAT	CTGCCAGGC	ATCTTCTGTA	AACTTGAGCA	GCATTTCTTA	CTCCTCAATA	17940
ACATGGACCT	GAGTACTTCC	AGCACGAACT	TGAGCCATTC	CTCGCAAAAC	CTTATCAGAA	18000
AGTTCCTTAT	TTTGAGCAAT	TCTCAGGGTT	TCTTGAGTAC	TATCCCACTC	ACTCTTTGAA	18060
AGGACTACAA	TGTCCTCATC	TGGATTTTTA	TTGACCACCG	TCAAAGGCTC	AAATTCATCA	18120

704

TTTACCTTCT TCATGTAGTC CTTTAAATGA TTTCGGAATG TTGAGTAAAG GACTGCTTCC	18180
ATAACCATAC CTCGTTTTAG CTCTTTTCCA CTATTATACA CGAAAAGAAA GAAATTGTCA	18240
GGAACCTGTA CAAGATTTTC TTTTCTATCT ATTTATACTC AATGAAAATC AAAGAGCAAA	18300
CTAGGAAACT AGCCGCAGGC TGTACTTGAG TACGGCAAGG CGACGTTGAC GCGATTTGAA	18360
TTTGATTTTC GAAGAGTATT ATTCGTAAAA AATCTCAAAA AGCCTACCTT TCGGTAGACT	18420
TAGTTTGTTT CTATTC	18436

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7001 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

ACGTAGAAAA ACTATTTCTA TCACAGATAA TATTCCGTAT GTTGTTGGAG GTATTGAAAT	60
AAACGTCCTA GGTATCTTTC TCAGTCTATG TGACTTACAA GGGAAAACCTC TTTTCGAGAC	120
AGAAATTTTG AATGAAGATT ATCCTATTTTC AGAAATCAAT TCCACCATTA CCAATATGAT	180
AAAAACAGCT ATAGAGTACG TCCCTTTGGA AACAAAATTA CTTGGATTG GCTTATCAAT	240
ACCTGGACAT TATAACAAAG ACTCCGGAAG TATCATTACA AACAAACCCA TATGGGAATC	300
TTTTAATTTA TTAAATGTAA TTAAAAGATT CAATTTTCCT TTTATTGTAA AAAATAATAT	360
CGATTGTATG GCTATAGGAC AATACCTTTT TAATCCACAC AATACCCCGG ATAACCTTAT	420
TTTCTTACAC GCTGGATTAG GTATTTACAC TTCTTTTTC ACAAAGAAA AAATAGGAGC	480
CTCTAAAAAT CCTTATATCG GAGAAATTGG ACACACCATT GTCGAATTGA ATGGGCAATA	540
TTGTGAATGC GGAAAAAAG GTTGTTTACA AACATATATT TCGGATGCTT GGTTAATCAA	600
ACACGCCCAA TTATTATTTA AAAATTCCCA ACTAACTGTA CTAAAAAGCC TTGTAAAGAC	660
TGAAAAAGAC ATTCATTTAG ACACCTTTT AACGGCTTAT AATTTAGGCG ACTCCGCTTT	720
ACGTCAACAA ATTGATAAAG GAGTCAATTT ATTAGCCACT TCTATTGCAA ATCTCCTCCT	780
CATCAATCCT GCTGATAAAA TCTATATCAA CAGTCAATTG CTTAATTATC AACCTTTCAC	840
TCATGAAGTC AGGGATAAAA TCCAAGACCA GCTCCACTTC GTTCCCTTTA CTCGTAATAT	900
AGAAATTGAA ATTTTACCTT ACAACAAACA TCGTGGAGT ATAGGAGCTT GTGCATTAGC	960
TATCGTCGCT TTTTTCATAG AACATAGCAA TGTATTACAA GATATTATTT CACCTTAATA	1020
TATTAGAAAT CTATAGACCT GTTTAAATCA ACTATAACCT GTAGTAGATA TCTCGTATTT	1080

705

AGACAATATG AAAACAAGAC GACTTCCATA TAGGAAACCG CCTTCTCGCT ATGTTGAGTG	1140
ATTTATATTA AAATAACTTT TCTTCTAGCT GCATTTTATT ATTATAAAAA CATTTCATCAT	1200
AACCCCCAGA ACTTAAATAA CAATTTTAT TCAAGATACA TACTCCTAGA ATAAACTTTA	1260
TATGAAATTC TCATTTTGT TTTTACAATT CTCCTTAGTT AAATCTTGT TAATATATGT	1320
TTTACATATA GTATTTAGCG CCACATAGTA CTGAACTCTC TCCAAAAACG GTTATTCCTC	1380
TTTGAATAGG GCGTTATCAC AAGAAAAGCA TCTCCACGTT TCAACTTCAT ATGGCTCAAA	1440
AACAATCAAT TGATGCTAAA ACCTGTACCT AGATGTTTCG GTTCATAAAA CCATGAAACT	1500
GTAAGAGTGG ATGAAATTGA TAGCGATAGT CAAATCAAGA GGCATCATAA CTCTAAAAAG	1560
TCACAATATA TAAGTTCATC CTCGGAAAAA TATCATTTCTA ATTGTTGAAA TGCCTACATG	1620
AAAAGAAACG TCAATGCTC ATGAAACAAC GAATACAGGT ATCAAACTA TGACAAAACA	1680
AATCCCTAAA TTTACTAAAG AACTTGCTCA ACTTTACACC TGTAATGGT TGTGTATAA	1740
TAAAGTTACA AAGATGTACG ACCACACTGT TGTAATCAT AGTGTTCGCG AATATATTAC	1800
TGATAGCATT TCTACAAATA CAAGTAAAGA GAGCGGATGA GATTCAAACG AAATATGTCA	1860
GTGCTTGGC ATTCCTAGCC TTCATATCAT TTAAAGAATT CTATAGACAA AATTTTTC	1920
AATACAGACA CTCGTAACAA CTGCTTCATT TTTCTACCA CATATTTAGG AACAGGATAA	1980
GATACAAGAG TATTAATCCA TAGCTCAGTT CTATACCAAT CTAAGACAAA TAAGCTAAAA	2040
AAACGATTGA TAATAAGCAA ATAGATTCCA AATTTTCTCT ATCTGCTCAT TTTAATAAAC	2100
AATACTAGTG TAACTATCCT TCCAGTCAGA AGCTTGTCAG ATCACACCGA AAATCTTCT	2160
AAAATTTATC TCGTTAGGCA ATCAAGCAAA AACTCGACGA TAGTACAAAC ATTATCATAC	2220
AGGATTGACT TCCTAAATTA TATACTTTAG TAAGGTTTTT GGATAAGAAA AAAGGTTTAT	2280
TTTACATTTT TAAACATTCT TTTCTAAGAT GAAAAACAGA ATTTTTCGAT TGTGATTAA	2340
AGCAACAAGA AGATTTTCAG TATCATCCTA TAGATACGAG CTAATTAAGA AAAACTACAT	2400
TTTTGAATAT AACTACAAT AATATAAACT AAATTTTATA GGAGGAAGAC AATGGATTGG	2460
TACGATTATA TGATACAGGC ATCCAAACAA TCACAATTCA ACGCAAGCCA TTGGTTTCGC	2520
TATTTGCGAA AAGTTATTTT TGAAGACTAT TCTTATTTAA CAAACCAAGA TGTAAGAAAAG	2580
TTGCTAGACT CCAAAGAACT AACCCGTTTT CAAAAAATTA GCTTGAAGTA TGCCTTTCAA	2640
GAGCATACTC CAACTCATAA ATATGTGATT TCATTAAATA AACCTGCTAA GTTAACCAAT	2700
GTTCAAAAAT TGATGGAGAA ATACAAACAT GGATAAAATG AAACCGGTCT TCCAAGCCCT	2760
AAATAAGGAA TTAATTCAGG AAAATCTGAC TTTAACAATT ATCTGTGTCG GTGGTTATGT	2820

706

CTTAGAATAT	CATGGTTTAC	GTGCCACACA	AGATGTTGAT	GCTTTTATGG	CTCTATAATA	2880
TTTGTAGTGG	GTAAATCCCC	TATGGATATT	ATGGAGCCTA	TTTTTGTGTA	GAAAAAAAGT	2940
CCCATATGAC	CTATAATGAA	AAGCGACAAA	ACAACTCATT	AGAAAGAATC	ATATGGAACA	3000
ATTACATTTT	ATCACAAAAT	TACTAGACAT	TAAAGACCCT	AATATCCAGA	TTTTAGACAT	3060
CATCAATAAG	GATACACACA	AGGAAATCAT	CGCCAACTG	GACTACGACG	CCCCATCTTG	3120
CCCTGAGTGC	GGAAACCAAT	TGAAGAAATA	TGACTTTCAA	AAACCGTCTA	AGATCCCCTTA	3180
CCTCGAAACA	ACTGGTATGC	CTTCTAGAAT	TCTCCTTAGA	AAACGCCGTT	TCAAGTGCTA	3240
TCACTGTTCA	AAAATGATGG	TCGCTGAAAC	TTCTATCGTC	AAGAAGAATC	ATCAAATTCC	3300
TCGTATTATC	AACCAAAAAA	TTGCGCAAAA	GTGATTGAG	AAGATTTCTA	TGACCGATAT	3360
TGCTCATCAG	CTGGCCATTT	CAACTTCAAC	TGTCATTTCG	AAGCTCAATG	ATTCTCACTT	3420
TGAGCATGAT	TTTTCGCGTC	TTCCTGAGAT	TATGTCCTGG	GACGTTGAAA	CAGTCCGGGG	3480
AGTGACTGTT	TCAATCGGGA	GATGGAGATG	AGCTTTATTG	CGCAAGATTT	TGAAAAGCTC	3540
GATATCATCA	CTGTTCTTGA	AGGTAGAACA	CAAGCTGTCA	TCCGAGATCA	CTTTCTTAAA	3600
TATGATAGAG	CCGTCCGATG	TCGCGTCAAA	ATTATTACTA	TGGATATGTT	TAGTCCTTAC	3660
TATGACTTAG	CTAGACAACT	TTTCCCCTGT	GCTAAATCG	TTCTTGATCG	CTTTCACATT	3720
GTACAACATC	TTAGCCGTGC	TATGAGTCGT	GTGCGTGTCC	AAATCATGAA	TCAGTTTCAT	3780
CGAAATCC	ATGAATACAA	GGCTATCAAG	CGCTACTGGA	AACTCATCA	ACAGGATAGC	3840
CGTAACTCA	GCGATAAACA	TTTTTATCGC	CCTACTTTTC	GTATGCATTT	AACCAATAAA	3900
GAGATTTTAG	ACAAGCTTTT	GAGCTATTCA	CAAGACTTGA	AACATCACTA	TCAGCTCTAT	3960
CAACTCTTGC	TGTTTCACTT	TCAGAATAAG	GAACCGGAGA	AATTTTTCGA	ACTTATCGAG	4020
GACAATCTTA	AGCAGGTTCA	TCCTATTTTT	CAGACTGTCT	TTAAAACCTT	CCTCAAAGAT	4080
AAAGAAAAGG	TTATCAACGC	CCTTCAACTA	CACTATTCTA	ATGCCAACT	GGAAGCGACC	4140
AATAATCTCA	TCAAACCTAT	CAAGCGCAAT	GCCTTTGGTT	TTCGAAACTT	TGAAAACCTC	4200
AAAAAACGGA	TTTTTATCGC	TCTGAATATC	AAAAAAGAAA	GGACAAAATT	TGTCCTTTCT	4260
CGAGCTTAGC	TTTTTTTCAA	CCCACTACAG	TTGACAAAGA	GCCGGAAAAA	GGAACAGCCT	4320
TAGCTTTCCT	TTCATTTCCT	TTTATTTCCT	TCGTAGTAAA	CGTGCTAGCT	TCCACAAAAC	4380
AAACAGGATT	CCCAGAAATG	CCAGTACCAC	TAGCCACGCG	TACAACCATT	GAGAGGTTGC	4440
AACACGCGAT	ACAGATTGTC	CTTCTTTCGT	AAAAGCAACC	CTCGCAACTG	CAGCTGTTTG	4500
TGGATCTGAT	TTTTTGATAAA	CAGCGACTCG	TTCAAAATTC	ACTAATAAGC	GTTTATTAAA	4560
GGTAGGAATC	GGATCGCAGG	TTATCAAGGT	CATGATATTT	TTAGAGCTAA	CCGATTCTAA	4620

707

TTTTTCCCAT	TCCGACGGTA	AAATAATCTC	TGTGTCCATC	ATCTGATATT	CTACAATTTTC	4680
CTGGCCATTA	TCATAATAAA	GAGCATCTCC	AACTTTTAGC	TGATCCAAAT	GGCGGAAAAA	4740
GACATGGCTT	GGCTCTGCAC	GGTGCCAGC	AATCACTGAG	CGAATCCCTG	TACCATCCAG	4800
AGGCAGCGGT	GTACCATCCA	CATGAGCCAA	GCCCATCCCT	AAATGATGAT	AATCTGCTCC	4860
CAAATAAACC	GGCTCCATGA	TTTCCAAACT	TGGAATAGAC	AAGTAACCAT	AGACTGCATC	4920
AGGGTCGTCA	GACACTTGGT	AATTGACCTC	ATATCCCTCC	GCCAAAAAAG	GATCTACAAT	4980
GCGATTTTGC	GAAGCCAAGC	GTTGATTGTA	GGCGAGAGAA	TGGTTCTGTT	GTTCTTG GTA	5040
CATTTCAGTT	GTCATGGATT	TCACAAATGT	AGCATGACCT	TTCACCTGTC	CAAGAGACTG	5100
CAACACCATC	TGTCCAAAAC	AATAAATAGG	AATCAAACAG	GCTACCAACA	TCAACAAGTA	5160
TCCCAATAAG	GCTCGTAGTT	TAGTCCTTGA	CATGACGCCC	CTCCAATTGC	TTTTCTAGTC	5220
CTTTGACAAT	CCGTCGATTA	CGATACACGC	GATACAGCAA	GAGAAGGATG	ACCGCCATCG	5280
CTCCTAGTAA	TAACCACAAC	CAGAATTGCC	CACGCTCTCT	CACCGCTCGA	TTCGCTCTG	5340
CAATTGGTGC	CGTATACGGA	ATCCGCTTCC	CACGTACCAA	CAGACGATGA	CTGTTAATCA	5400
TATACGGTGT	ACAAGTCAAC	AAGGTCGCAT	AATCTTCCCC	ATGTTGAATC	AAGACAGGCT	5460
CAAAGTCATT	CGGCTCCACC	GTCACTATCT	GATCCACTTG	GTAGGCCAAC	ACCTGATCTA	5520
AAACGTGAAG	ATAAAAGATA	TCCCCTTTTT	TCATCTTATC	CAATTGACTG	AACAATTCTG	5580
CCGTGCGCAA	TCCTCTGTGA	GCAGTGATCA	CTGTATGGGT	ATTTTCACCT	CCAACAGGCA	5640
GCGAAGCCCC	TTCTAACAGC	CCTGCCCTTT	TCTGAAGAAT	GTCTCTACTC	GTTCGGACAT	5700
ACATCGGAAT	TTCTTGATCA	ATCGCAGGAA	TTTCCACATA	GCCAATCCGC	TCATGGACCT	5760
TTAGCATATT	GGCATATTCT	GAGACGCCTT	TCTTTTCTC	TTGCTCTGTA	AAAGGATCAA	5820
GAATTTCAGA	TGTTTCAAG	GTCGCATTGA	AGGCTTGAGC	CAAGCGCCAA	CGCTCCTCAA	5880
GTTCTGCCTT	ATCCATCTGG	GAAACCGTCT	CATCAAATC	TTTAATAACC	TCGTTTGAAT	5940
CAATACGATA	ATAATAACGA	GACACCAATG	GATATATCGC	AACGGCGAAT	CCTACTAAGA	6000
AAATCAGAAG	AAGGATCAGC	GGATGTTTCT	TCTTTTGT	GCCTTTT	CGTGAACGTC	6060
TACTGTTGTC	CATCCTCCAC	CTTCACTTCC	TTCTTGCTG	CTTTCAGCGC	CTTCAAAGCC	6120
TTTTCCGGTT	GTTTTTCTT	CTTGCGCAAG	CGTCGAATAA	TCCATAAAAG	AATCACAATC	6180
AAACCAACTG	CCACATAAAA	CAGGTAGCGA	TAGAGATGAC	TGAGTTTGTT	TGCTGCAATA	6240
AATTCTTCCT	CAACCTCTGC	TACGTACGGT	ATCCGATGCC	CCCGAACCAA	TAGACGATGG	6300
GTATTGATCA	TGTATGGCGT	ACAAGTCAGC	AAGGTCACAT	AATCATGACC	TGGTACAATC	6360

708

AATAAATCAT CAAAGTTCGT CGGCTCAATC ACCTTTACTT GATCCACTTG ATAGGCCATC	6420
ACTTCCTTGA TATTGTGCAC ATAAAACTTA TCCCAACTT TAAGTTTGGT CAAATCCGTA	6480
AACATCTTAG CTGTTGGCAA ACCTGTATGT GCCGTAATCA CCGCATGGGT CGAATTGCCT	6540
CCGATCGGCA GAGAAGTTCC CTCTAGATGC CCAGCCCCTT GCTGCAATAC CTCTTCAGCA	6600
GTACCAGCAT AAACCGGCAA ATCCACGTCA ATAACGGGGA TTTCCACATG CCCCATCCGC	6660
TCATGGATTT CTAACATACG TGCATACTCT GCTCGCCCTT TTTTCTTCAT TTCTTCCGAC	6720
CAAGGATCGC CACTCACTAC ATTATTCAAA GAGTCATTGA AGGCTTGTGC CAATTTCATT	6780
CGTTTCATCA TGTCAGCCTC ATCCAACGTT GCTTTTTCTT TATCAAAGTC AGCAATTGTG	6840
TGATTTGATT CCACTCGATA ATACAAGCGA GACACCAGCG GATACGCCAT TACCGCCATT	6900
CCAATGAAAA ATACCACTCC TAATAGGAGA TTATTTCGTT TTTGCTTTTT TGTTTTTACC	6960
ATTTTTATCA GCATCCCTTT ATCTTCAAAC TTCAGGGTAT C	7001

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10411 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:

GAGGGAGCTT AAGAAGTTAC CACCGTCCTC TAGCGCCTTA TCCGCATCAA AGTTAAGGTT	60
GATATTTTTA AAAGTGTGCG CAGCTTGTGA TACGATGCTT TGTTTAAGGT CATTTAGGGT	120
TTTAGTGAAG TCTGCATTGC TGAGGATATC ACTCTTTGAG AGATTCAAGG CAAAATTGAT	180
GATGATATTG ATCTGGTTTC CTGTTATGAC CTGATCAAGT TTGTAATTTT TTAAGGTATC	240
TTCAACAATC TTGCGGATAT CTTCTTCTGT CAGATTTCCC TTACTTTCTT TAGCTTTGGC	300
GAGTCCTGAC TTGATATCAG CTAGGGCAAC GTTTAATTTA TTAGCATCAT AGCCTGATTT	360
GTCCTTGTTT TCAGCATTGA TATCTGACAA AGCTTTTAGC TCTTCTTGAG CCAAATCTTT	420
ATTAGCTTGT GGCACCTTGG CTCCATTAGC CTCTAGCGAA TAGTAAATCC CTGCTAAAGC	480
ACTTCTCCT GTAACGGGAA TAGGGGCTGC TACAGTGATT TTGGCATGTT CCATACCCAG	540
CGTTACTGCT GCGTTTCGGT ACATATCCTG AGTCACCTTA GTGATATTTT CTGGTGTTTC	600
AATCTTGACC TCAAGTGGCG ATTTGTCACC TAGCTTTTGA ATCTTGCTG ATGAATACAA	660
CTGTAAGCTA GAGTCATTGG CCACATTCAT GATTTTAGAA TAAACATCAG GTGTCATGGT	720
CTTGAGTTCT TTGGTATCTG TTGAGGCATT GTAGCCAGT TTTTAAAGAG TTTGATTTTT	780

709

TTGGTCTTCA GATAGGGAGG AACCTAGGAC ATATTCAGGT TGGACATAGG TTTCATCGAT	840
AACTTTTTGA ACATCTGTTG CTGCATGGAC GCTATTCATA GCTGTACTG CCCACAAGAT	900
CGCAGCGCTA GTCAGAAAGA GTTCTTTCT CATAGGGAAT TTCCTCCTTT ACTTCTTTAG	960
AGTAATATAT CTATCTTAAA GAAACTTAT AACAAAAACA CCTGGTCTAG CCAGATGTTG	1020
AAAAGAGAGT GAAACATTG ATGATGTAAA GGTTAAGTCG TACCTGTCTA GAATAATAAT	1080
AGTTTCCTCC ATTTACATAG AGTTCAGCAC CGTGAAAAAT GGAAATGGGG TGAATATAAC	1140
TATAAGTCTT TCCAGTCCTA TTACCAAGCA AGGGGGCAAC AGTCTCACGA GAGTACTGTT	1200
TGGCTAGAGC CAGGGTATTT TCCTTGCCAT TTTGGGCGAT AAAATCGATA TAGGCAGGTC	1260
CAAAATTATA GGCTTGAACA GCTGTCCAGA TATCTACCCC CTTCTTCTGC GCCAGATAGA	1320
GATTGCCTGT CAGAGTTTGA ATGCCTTGCC GAATGCTAGA GGCATTATCA TTGATGGTGT	1380
TGGTGGAACC ACTTGCAGAC TCACTAGACT GCATAACATC GCCTTCTTTT CCTTTTGT	1440
CAGTATAAAT CATAGCAAGC ACAAGCTCTT CGTTTGCTGG GGTGTCTTGT TCACTCAATA	1500
TTTCTCGCAC CATGGGTGA TAGGTCATGA CTTGTTGAC ATCTTGATGA ACGCGGTAAG	1560
CTTTATAGCC AGCAAAAAGG AAGACTGCTA GTACAAGCAC TCTTCGAATT CGTTTAAACA	1620
TTATTTACTT TGGATATCCT CGATATTTTT GATTAAGATA GAGTAGGTTC CATTTTCGTT	1680
TTGGATAAAC TCAACAGACT CGGCGTCTTG ATAGACGTTA TTGGGAACGA TGAGCTCAAT	1740
TCCATTTGAT AAGGAGAGTT TTTGGTTTTT AAATTCTTT AATGGCGAC TGGCATCAAT	1800
TTTCATCAAT TGAACAGGTT CTGGTACGGC TTCTTTGACT TGGTCAATAA AGCTCAAACG	1860
AGCCGTCAGA TTGTTGTCAA AAAGGTCATT AGCCAATTTC TCAGGTGACA ATTCATTGCT	1920
TTCTTCTAGG TTGTTGAAAA TAGCTGATTT GACCTTGAT TGAAATTGAA AATCATCTGT	1980
GTAAAAGAT TTAGCAATTC TCTGGGCTGT TTTTCCAGT TCCTTGATAG ATTTTTTAGG	2040
AGAAATCTTA GGAGCGACAG CAAGAAGATT ATCTGAAAA TAGTTCAAAA AAGTCCCGTT	2100
GTACTTGATT CGTTTTTCAA TCAGGTGATA CTTGCTACTC TGAAGATTGA CCACCAAGGC	2160
CTCATCAGCT CCTGTTCCAA ATCCAGGCAG GTTATTCTGA GTTAGCTTGA TTGGATTATC	2220
AACTTCTCCT CCGAGGTGGG TCAAGGCTC CCGCAGGGCA ATTCGCAAGA AAGCGAAATG	2280
TTCTACACCT TCTTTAGAAA ATTGCACAAA AATCAAGTCA TTGGTCTTGA GATTTTCAGA	2340
AATGCTAAAC TCCTCTTTCC AGAGATTAGC CAGCGTACT GATGTCTCCA ACAAATCGTC	2400
TGTAATATGA TTGAAGAAGG GATTTTCTTC TTCGAAAATC CCAGTCTTGG CTTCATCTGA	2460
ATACACATGT TCAATTTTTT TACGCAGGTA TTCTTCGATT TTTGGAGTAA TATTGAGAAA	2520

710

CTTATCTGCT	AAGAACAGTT	CGGTATCATC	CGGACTGAAC	TGGTGAATAA	TGGCTTTCTT	2580
AATATAAATG	TCCATAAAAG	TTTTAGTCCT	CGTATAATGG	GAAGGCATCT	GTCAATTCTT	2640
TGACTGCACT	TCTCACTTCT	TCTAATACAG	CCTCATTTTC	TGAATTCCTA	AGGGTTTTAA	2700
TGATGAGTTC	AGCCACTTTG	CGACTTTCTT	CTTCACCAAA	TCCACGTGCA	GTAATGGCTG	2760
CTGCTCCGAT	ACGAATCCCA	CTTGTCTTGA	ATGGTGACAA	GCTTTCGTAA	GGGATTGAGT	2820
TTTTATTTAA	GGTAATATTG	ACTTCATCCA	ACAAGTTTTG	AGCAACTTTG	CCGTTTCTA	2880
CAACTTTAGT	CACATCAACA	AGGAAGAGAT	GGTTTTTCAGT	TCCACCTGAA	ATAATACGGA	2940
AATCAGGGTC	TTGCAAGAAG	ACATCTGCCA	TAGCCTTGCT	GTTCTTAATT	ACATTGGCAG	3000
CATATTCCTT	GAAGGCTGGA	TCCAAAACCT	CTTTGAAGGA	AACTGCCTTA	GCCGCCACAA	3060
CATGCTCTAA	AGGACCGCCC	TGAATACCTG	GGAATAATAGC	TGAATTGATT	TTTTTAGCAA	3120
GTTCTTCGTC	ATTGGTCAAA	ATCAAACCAC	CACGAGGTCC	ACGAAGGGTT	TTGTGGGTCG	3180
TTGTGTGTGT	GATATGAGCG	TATGGAACGT	GGCTTGATG	AAGGCCAGCC	GCAACCAAGC	3240
CAGCGATATG	GGCCATGTCC	ACCATGAGCT	TCGCACCGAC	AGCATCTGCG	ATTCACGGA	3300
ATTTTGAAAA	ATCGATAATT	TGAGAATAGG	CTGAAGCACC	AGCTACAATC	AGTTTGGTT	3360
TTACTTCTTG	GGCTTGTTTC	AAGATAGCAT	CAAAGTCTAA	GAGTTCCGTT	TTAGGATCAA	3420
CACTATAAGA	AACAAAGTTG	TAGGTTTGAC	CAGAGAAGCT	AACAGGAGCC	CCATGAGTCA	3480
AATGACCACC	TGATGCCAAA	TCCATTCCCA	TAACCGTATC	ACCTGGCTCA	ATCAAGGACA	3540
TGTAAGCCGC	ACAGTTAGCT	TGGCTTCCTG	AATGTGGTTG	AACATTGGCA	AATTTAGCAC	3600
CGAAAATTTT	TTTTGCGCGT	TCAATAGCAA	GAGTCTCTAC	AACGTCTACT	ACATCAGTTC	3660
CACCATAATA	ACGGCGTCCT	GGGTAACCCT	CGGCATATTT	ATTTGTCAAG	ATAGACCCTT	3720
GAGCTGCCAT	AACAGCCTTG	GAAACTACGT	TTTCCGAAGC	AATTAACCTG	ATATTATTTT	3780
GTTGGCGTTC	TTCTTCTTTG	GCAATAGCAT	TCCAGAGATC	AGCATCATAT	GCTTTAAAT	3840
CATCTTTGTC	AAAAATCATA	GGTCTTCTCC	TTTATTGTGT	GACTAGTCCA	TTAGTTTGAT	3900
TTTACAATAA	GAAAATCAAA	CTAACAGATG	CGAATAAACC	GTTTCTGCAT	TTTATCACAA	3960
GTATAGCCAA	CTTTTTCATA	AAATGCATGA	GCACCCAGAC	GATGATTGGC	AGAATTTAAG	4020
CGGATAAACC	CATAACCACA	TCTTTTGTGCT	TCTTCTTCCA	ACCCTTGTAG	TAAACTTTTA	4080
CCAATACCTT	GACCTTGCGC	TTGAGGTGAA	ACTGCTAAAG	CTAAGATATT	AAATCCTGCT	4140
TTGGAATAGA	GTGATTCGTA	AACTTCAGCG	TGGACATATC	CAAGTAAGAC	ATGATTAGCT	4200
GCATCCTCAT	AGCCAAGTAG	GAAATGATGG	GAATCCTGAG	ACAGTCTAGC	TAGTTGGCTA	4260
GCCGTTTCTT	CTGGACTAAA	AGTATAACCC	AAAGCCTCTT	GTTGATGTC	ACATATAGCT	4320

711

TTCACATCAG	TTTCTCTTAA	ATCTCTTAGC	ATCTCATTCC	TCCTCAAAAG	AAATCTTTGG	4380
CAACCGAGCA	AGAATATCTT	CTCGCTTAAT	GGCCCCTTGA	CGTAAGATTT	TCACCTTGTC	4440
TCCCACAAA	TTCAAAATAG	TTGAATCCTG	TCCAGTTAGA	AAAGCATCGT	CTTCCAGACC	4500
CAGAACCTCT	TGGTCAAAAT	CCTCTAGAAT	TTGATTAAAG	GTCACTCCAC	TCGCCTGACC	4560
TGAGATATTG	GCAGACGGCC	CAATCAAGGG	ACCTGTCTCT	CGAATCAAAT	CAAGGGTAAT	4620
GGGATGACTA	GGCATCCGAA	ATCCAACAGT	TGCAAGGCCA	GAATTGACCC	AATAGGGAAC	4680
TCGGTCATTA	GCTTCGAGAA	TAATGGTCAA	GGGACCTGGT	AAAAAGATCT	CTACAAGTTT	4740
TTGAAGATAA	GTGGGCTGAT	TCTTTGAAAA	GTACAAGATG	TCCTCTAAAG	AGGCAACATT	4800
GAGATTGAGC	GCCTTGCTCT	TACGTCGACG	TTTAAGCTGG	TAAACATGGT	CAACTGCTTT	4860
TTCGTCTAGC	GCCTTAGCAA	AGAGACCGTA	AACTGTCTCT	GTAGGCAAAA	CGACAGCTCC	4920
ACCATTTTCC	AACTCTTGTC	TAATCCTGTC	CATCATCAAC	GACAACCATC	CTATCTTGAC	4980
CAAATTGGTC	CTTGAGTGTT	CGTACTCGCT	TTTCAGGAAG	ATGTTTCCTA	AAAAGTTCAG	5040
GAACACTTTG	ACCTTGCTTG	TATCCAATTT	CAAGGTAAAT	CTTACCACCA	TCTTTGAGAT	5100
AGTCTTTTGC	ATCTTCCGCA	ATTCTACGGT	AAATAGCTAG	GCCATCCTCA	TCTGCAAAGA	5160
GAGCTAGATG	AGGCTCCGAA	TACAAGACAT	TCAAGCCTAC	CTCTGACTCA	TCTTCACGAG	5220
AGATATAGGG	TGGATTGGAA	ACAATTATAT	CATATTTTTC	AGAAATTTCT	GTAAAACAGT	5280
CAGATTTTTT	TAAAAATATT	TGAAGATTTT	GATTTTTTAGC	ATTTTCGCTA	GCTACATCTA	5340
AAGCATCTTG	GGAAATATCT	GCTGCCGTCA	CTGACCAATC	TGGTCTGTTT	TTTGCTAGAG	5400
CGAGAGCAAT	AGCTCCACTA	CCTGTTCCGA	TATCTAGGAC	CATAAGATTT	TTACAGGAT	5460
TTTCAGCCAG	GATAAGCTCC	ACCAACTCCT	CTGTTTCTGG	ACGAGGAATC	AAAACCCGTT	5520
CATCCACCTT	TAAATGCATT	CCATAAAAAAT	CTGCCTGTCC	AATGATGTAC	TGAGCTGGCT	5580
TGTGAGCTGC	TAGTTGCTGG	TAAATATCTT	CTACAAATTG	TTTTTCTTCC	TCTGTTGTCA	5640
CCTCCTGCTG	GAGGGCAAAA	ATAAAGTCTG	TAAAGATAG	ATTTTTCAGA	CTACGATAGA	5700
CAAAAGAGAG	GCTTTCGCT	TCCTCTCCTT	GTCTTATCAA	CTCTTCTTCA	AAATTTGAAA	5760
ATAATTGAGC	TAATTTCAAT	ATTTGTTTAA	TTCTTCTAGT	TTTGTGTGTT	GGTCATAAAG	5820
CACCAAGGCA	TCCACAACCT	CGTCCAATTT	ACCAGACAAA	ATCGTATCTA	GTTTTTGAG	5880
GGTCAAGCCG	ATACGGTGGT	CTGTGACACG	GTTTTGTGGG	AAGTTATAAG	TTCGGATCCG	5940
TTCTGAACGG	TCACCACTAC	CGATTGTCGA	CTTACGCTCA	GCGTCCTGCT	CATCTTGAGC	6000
AAATCTGAGCA	AAGTGGTCAG	CAACACGGGC	ACGGATGATT	TTCATGGCCT	TCTCACGGTT	6060

712

CTTCTGCTGG	GTACGTTCTT	CCTGCATCTC	AACCTTGATA	TTGGTTGGCA	AGTGAACGAT	6120
ACGAACGGCA	GTCGCAACCT	TATTGACGTT	CTGTCCACCA	GCACCAGAGG	CGTGATAGAT	6180
GTCGACACGA	AGGTCTTTTG	GATCAATGTC	GTATTCAACC	TCTTCAACTT	CTGGCATAAC	6240
AAGAACTGTC	GCTGTGGAAG	TATGAACACG	GCCTTGCGTT	TCTGTCACAG	GAACACGTTG	6300
CACACGGTGG	GCACCTGATT	CATACTTAAG	CTTAGAGTAT	ACAGACTGAC	CTGAAACCAT	6360
AGCAACCACT	TCTTTAAAC	CACCGACACC	ATTCATAGAG	GCTTCCATGA	CTTCAAAGCG	6420
CCAACCTTGG	GCTTCCGCAT	ACTTTTGGTA	CATAGTTAGC	AAATCTCCAG	CGAAAAGTGC	6480
CGCTTCGTCT	CCACCAGCTG	CTCCACGGAT	TTCAAGGATG	ATATTCTTGT	CATCGTTTGG	6540
ATCCTTTGGA	AGGAGCAAAA	TTTTCAGTTT	TTCTTCATAT	TCTTCTTTTT	CAGCCTTGCC	6600
ATCTTTGAGT	TCTTGCTTGG	CCAATTCTTC	CAAGTCCGCA	TCTCCGCCTG	ATTCCCTAAT	6660
CATCTCTTCG	GCATCGACGA	TATTTTGAAG	GACTTGTTTA	TACTCACGGT	AGGCTATTAC	6720
GGTGTACGA	TTGGAAGCTT	CTTCTTTTGA	AAGCTCCATA	AAACGCTTGG	TGTCTGAAAC	6780
GACATCAGGG	TCACTCAGCA	ATTCTCCTAA	TTCTTCATAA	CGGTCTTCTA	CAACTGTAG	6840
TTGATCATAG	ATGTTCAATT	TTTCTCCTTA	TTTCTCAATT	GTTAAATCAT	AGATTGCTAC	6900
TACTTCATTC	TCGGATATTT	CCCCAGTTTC	TTTAAATCCA	TAAGTGGT	AACAAAATCT	6960
TGCCTGTTCA	TTTTCTGGTT	CATAGTACAA	CCAAAGTTTA	TTGCTTAAAC	CTGCTGGCGC	7020
TGTCGAACA	TAGTCTAGTA	CTTTATCCAT	AATTGGTTTA	AAATATCCTT	GATTTTGAAA	7080
ATTCTTATCA	ATCATAAAAC	GAAATAGTAA	ATAATTTCCA	CTACTAATTC	CGATCTTTTT	7140
ATCATAAGCT	ATCATCACAA	AACCTATAAT	TGCATCATTA	TCATAAACTG	CCAATGGAGC	7200
TACAAAATCT	CCATTTTTAG	TGTAGACGTA	TGCTTCAGCT	AACTAATTG	CGTTGGTTGC	7260
AATGAATTGT	TTTTGATATT	CCTTGACATC	CAAATTTAAA	ACATCAAAAT	AATTTTCCAT	7320
TGTAACATCT	CTTAGTTCAA	TTGTCATAGT	TTTGCTCCTT	GTTAGAGGTT	ATCATTGGCG	7380
CAAAATAATG	TTTACGGCAA	ACTGAGATAT	AGGTTTCGTT	ACCACCAATC	TGGATCTGTT	7440
CTCCATCGTA	AACGGGCAGT	CCATCCTGTG	TTGCAACAC	CATGGTCGCC	TTTTTCTTGC	7500
AATACTGACA	GATGGTCTTG	ATTTCTGCAA	TCTTGCTGTC	TAAAAGCAAG	AGATATTTGG	7560
AACCTTCGAA	CAATTCATTG	CGAAAGTCAT	TTTCAAGCC	AAAAGCCATG	ACGGGTATGT	7620
CTAACTCGTC	CACAACACGA	GCTAGGTCGT	AAACATGGTG	GCGTTTGAGA	AACTGGGCTT	7680
CATCGACCAA	AACACAGTAA	GGTTTTTCTG	GTAGGTCTCG	GATATAGCCA	AAGATATCCG	7740
TTGTTTCCTC	AATCGCAAGG	GCAGGGCGTT	TCATGCCAAT	TCGACTCGAC	ACATAGCCAA	7800
CGCCGTCACG	CGTATCCAGA	GCCGAGGTCA	TAATCACAAC	ACCTTTTCCT	TGCTCCTCGT	7860

713

AGTTATAGGC	CACTTTGAGA	ATCTCAATCG	TTTTACCAGA	GTTTCATGGTC	CCATAACGAT	7920
AGTACAACG	TGCCATGTTT	CTTGCTTAC	GTCCATTTCT	AAATTTTGC	TACATTCTAG	7980
TATATCATAA	TTTTCTTAAG	CTTTAAACGG	CAAAATGTGG	TAAAATAGAA	GAAATCAAAA	8040
ACTAGTGGAG	GAAGCTATTA	TGCCATTTGT	ACGCATCGAT	TTATTTGAAG	GACGCACGCT	8100
CGAGCAAAAG	AAAGCTCTTG	CTAAGGAAGT	AACGGAAGCA	GTTGTCCGCA	ACACTGGAGC	8160
CCCTCAATCT	GCTGTCCATG	TCATCATCAA	CGACATGCCA	GAAGGAACTT	ACTTCCCACA	8220
AGGGGAAAATG	CGTACTAAAT	AAGCTAGCTT	AAGCAGAATT	GCTTAGGCTT	TTTCAATCTC	8280
CAAGTAGCAT	TCATTGAAGA	AATATCCTAA	ATTGTGTACA	ATTGAAAAG	AAACTTGGAG	8340
AATTTCCAAG	AAAAGAGCTA	TTAATTAAAG	GAAACATTAT	GATTACACCT	GAATTTGATA	8400
CCATCGCTGC	TATCTCTACT	CCACTAGGTG	AAGGGGCTAT	TGGTATTGTC	CGCCTGAGCG	8460
gAACAGACAG	TTTGTCTATT	GCGCAAAAGA	TTTTTAAAGG	AAAAGACTTG	AACAAGGTTG	8520
CCAGCCACAC	TCTCAACTAC	GGTCACATTA	TTGATCCTCT	GA CTGGTAAA	GTCATGGAGC	8580
AGGTATATGGT	TGGGGCTATG	AAGTCTCCAA	AGACCTTCAC	TCGTGAGGAT	ATTATCGAGA	8640
TTAACACCCA	CGGTGGGATT	GCGGTGACCA	ATGAAATCTCT	CCAGCTAGCT	ATTCTGTAAG	8700
GGGCTCGGTT	GGCAGAACCT	GGTGAATTTA	CCAAACGTGC	TTTTTTAAAC	GGTCGCGTAG	8760
ACTTGACACA	GGCAGAGGCT	GTGATGGATA	TCATCCGTGC	CAAGACTGAC	AAGGCCATGA	8820
ACATTGCGGT	CAAACAATTA	GACGGCTCCC	TTTCTGACCT	CATTAACAAT	ACCCGTCAAG	8880
AAATCCTCAA	TACACTTGCC	CAAGTTGAGG	TCAATATCGA	CTATCCTGAG	TATGACGATG	8940
TTGAGGAAGC	CACTACTGCT	GTGTCCGAG	AGAAGACAAT	GGAGTTTGAG	CAATTACTAA	9000
CCAAACTCCT	TAGGACAGCA	CGTCGTGGTA	AAATCCTTCG	TGAAGGAATT	TCAACGGCTA	9060
TCATTGGACG	TCCCAACGTT	GGGAAATCAA	GCCTTCTCAA	CAACCTCTTG	CGTGAGGACA	9120
AGGCTATCGT	AACAGATATC	GCTGGGACAA	CACGAGATGT	CATCGAAGAG	TACGTCAACA	9180
TCAATGGTGT	ACCTCTCAAA	TTGATTGATA	CAGCCGGTAT	TCGTGAAACG	GATGATATCG	9240
TTGAACAAAT	TGGAGTTGAG	CGTTCGAAAA	AAGCTCTTAA	GGAAGCTGAC	CTAGTTCTGC	9300
TAGTACTAAA	CGCTAGTGAA	CCACTAACCG	CCCAAGATCG	CCAACCTCCTA	GAAATCAGTC	9360
AGGAGACTAA	TCGCATTATT	CTTCTTAACA	AAACTGACCT	GCCTGAAACG	ATTGAAACTT	9420
CGGAACTACC	TGAAGATGTC	ATCCGCATTT	CAGTTCCTTA	AAATCAAAAC	ATCGATAAAA	9480
TCGAAGAGAG	AATCAACAAC	CTCTTCTTTG	AAAATGCTGG	TTTGGTTGAG	CAAGATGCTA	9540
CCTACTTGTC	AAACGCCCGT	CACATTTCCCT	TGATTGAGAA	GGCCGTTGAA	AGCCTACAAG	9600

714

CTGTAAACCA AGGTCTTGAA CTAGGGATGC CAGTTGACTT GCTTCAAGTT GACTTGACCC	9660
GTACTTGGGA AATTCTAGGA GAAATCACTG GAGATGCTGC TCCAGATGAA CTCATCACCC	9720
AACTCTTTAG CCAATTCTGT TTAGGAAAAT AAGAAAAATC CATGATCCTT CATTCGGTCA	9780
TGGATTTTAG GTTCTATAAT ATTTGTAGTG GGTAAATCCA CTATAGATAT TATGGAGCCT	9840
ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATAATGA AAAGCGACAA AACAACTCAT	9900
TAGAAAGAAT CATATGGAAC AATTACATTT TATCACAAAA TTACTAGACA TTAAAGACCC	9960
TAATATCCAG ATTTTAGACA TCATCAATAA GGATACACAC AAGGAAATCA TCGCCAAACT	10020
GGACTACGAC GCCCCATCTT GCCCTGAGTG CGGAAACCAA TTGAAGAAAT ATGACTTTCA	10080
AAAAACCTTC TAAAATTCCT TATCTTGAAA CGACTGGTAT GCCCACTAGA ATTCTCCTTA	10140
GAAAGCGTCG ATTCAAGTGC TATCACTGTT CAAAAATGAT GGTCGCTGAA ACTTCTATCG	10200
TCAAGAAGAA TCACCAATC CCTCGTATCA TCAACCAAAA GATTGCTCAA AAGTTAATTG	10260
AAAAGATTC TATGACTGAT ATTGCCCATC AGCTTTCCAT CTCAACTTCA ACTGTTATTC	10320
GTAAGCTCAA TGACTTTCAC TTAAACATG ATTTTCTTG TCTTCCTGAG ATTATGCTT	10380
GGGATGAGTA TGCTTTTACA AAAGGAAGA T	10411

(2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2393 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTTTTGGGTT CTGGAAATTA TCAGATGGTT GGAAAAGCCG TCCACATCAA GATAGTGTTT	60
GGAGATTAA GTTTAAATTG AAGAACTAA CACAGAGGAA ATGGAGTATA GACCTAACAA	120
GACGTATTGA GCAACTGAAT TTGTCTATTC GAGGATGGAT AACTATTGC TCATTGGGAA	180
ATATGAAAAG TATAGTCGCC AGCATAGATG AGCGCTTGCG TACTCGCCTA CGAGTGATTA	240
TCTGGAAGCA ATGGAAGAAG AAATCGAGAC GATTATGGGG ATTGCTTAAG TTAGGAGTTC	300
CTAAATGGAT AGCAGATAAG GTATCTGGCT GGGGCGACCA TTATCAATTA GTAGCTCAGA	360
AGTCGGTACT TAAACGTGCT ATATCAAAAC CAGTCCTGGA AAAACGTGGA CTGGTTTCGT	420
GTTTGATTAA TTACCTTGAA CGACATGCGT TAAAAGTTAG TTGAACCGCC GTATGCCAAA	480
CGGCACGTAC GGTGGTGTGA GAGGGGCTAG AGATTATCCC CTA CTGATT AACTCCCCTG	540
AAATTTATTT TAATTATGCA AATTTACGT ATTTTGTATG CTGAGACGAC GATCCTGGGA	600

715

ACTTTTCAGA TATTTTTTTG ACTATCTAAA TCTATCATTA GAAAAGCTTA GAGCGCCAAA	660
GGATTGAGC GTTTTCTGA TTTTAAAGAC TTTTCCAGT CTCTTTTTCG ATTGAAGATG	720
TAATTATTCT ACTAACTAAC TAACTTCTTA GTACTAGCCA ACAACGATAA TCATAATTCC	780
TCCTAAAATT AGGAATAATA AAGGCAATAG TTTTGTGTTT TTCATGTAAA AAACCTCACT	840
TTTGTGTTCT GCTATTTTAT GCTAAAATAT TAAAAATCAA ATTTAATTCC AAAGTTTGTA	900
ACTAAAGGGG GAGCGCTACA TGTCTAATTC ATTTGTCAAG TTGTTAGTCT CTCAATTATT	960
TGCAAATTTA GCAGATATTT TCTTTAGAGT AACAATCAT T GCTAACATAT ACATTATTTT	1020
AAAATCAGTA ATTGCCACAT CACTAGTTCC TATCTTAATA GGAATATCCT CTTTGTGTTG	1080
GAGTCTTTTA GTTCCGTTGG TTTACTAAAAG GTTAGCGCTA AATAGGGTTT TATCTTTATC	1140
TCAATTTGGA AAGACTATAT TATTGGCGAT ACTGGTAGGA ATGTTTACCG TAATGCAATC	1200
CGTAGCGCCT TTGGTGACCT ATCTATTTGT TGTGCAATT TCCATACTAG ATGGTTTTCG	1260
AGCACCCGTT TCCTATGCTA TTGTGCCACG CTATGCGACC GATTGCGGTA AGGCTAATTC	1320
AGCCTTATCA ATGACTGGTG AAGCTGTTC AATTGATAGGT TGGGGATTAG GTGGACTCTT	1380
GTTTGCAACA ATTGGTCTGT TACCTACCAC GTGTATCAAT TTAGTCTTGT ATATCATTTT	1440
TAGCTTTCTG ATGTTATTTT TCCCTAACGC TGAAGTGGAG GTGTTAGAGT CAGAACTAA	1500
TCTTGAAATT TTGCTCAAAG GTTGAAGTT AGTTGCTAGA AATCCTAGAT TAAGACTTTT	1560
TGTATCAGCA AATTTATTGG AAATTTTTTC AAATACGATT TGGGTTTCTT CCATTATACT	1620
TGTTTTTGTA ACGGAGTTAT TAAATAAAAC GGAAAGTTAC TGGGGATATT CTAATACAGC	1680
ATACTCTATT GGTATTATAA TTAGTGGCTT AATTGCTTTT AGGCTATCTG AAAAGTTCCT	1740
TGCTGCTAAA TGGGAACCCC AATTATTAC CCCTAAATCTA AAAACCATCC AGAATCCTTG	1800
CCTTAGCTTA GATCCTGGAT GGTTTCTTTT TTCACCCAAT GGGTGTTTT TACTAGACAA	1860
AAAAGAGTTT CCCCTTTATG GTATAAGTGT AGAAAAAAC AAAAAAGAA AGGAAACTCA	1920
CATGAACAGT TTACCAAATC ATCACTTCCA AAACAAGTCT TTTTACCAAC TATCTTTTCA	1980
TGGAGGTCAT TTAACCCAGT ATGGTGGTCT TATCTTTTTC CAGGAACTTT TTTCCAGTT	2040
GAAACTAAAA GAGCGGATTT CTAAGTATTT AGTAACGAAT GACCAACGCC GCTACTGTCTG	2100
TTATTCCGAT TCAGATATCC TTGTCCAGTT CCTCTTTCAA CTGTTAACAG GTTATGGAAC	2160
GGACTATGCT TGTAAGAAT TGTCAGCTGA TGCCTACTTT CAAAATTTGT TGGAAAGGAGG	2220
GCAGCTTGCT TCACAGCCAA CCTTATCCCG TTTTCTTTCC AGAACTGACG AGGAAACAGT	2280
CCATAGTTTG CGATGCCTCA ACCTTGAATT GGTGGAATTC TTTTACAGT TTCACCAGCT	2340

716

AAACCAACTC ATTGTAGATA ACGATTCTAC CCATTTACACA ACTTATGGCA AGC

2393

(2) INFORMATION FOR SEQ ID NO: 91:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4762 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

TTTGTATCTT TTTAGGTCTC TTTCAATCCA AACCCCTTTAA ACTATACGTC ATTTCCGGTTC	60
CTGCAAGTCT TGTGGTAATT TTAGGTTTGA TTTTACTTTT CTTTTCACAA GAGCCTCTGC	120
ACGCTTCTTA TTTGATGGTC GTCTTCCCTG TTTTCCTACT TTTATTGGTA ACCAATATTA	180
AGAGTCAACA GAGGGGGCGT AGTGCTAGAA GAAGCCGAAG AGAAACGCCA TTATGCCTAT	240
GGAGTCGTTT CTTCAAAGGA AATCTATATC TGCTAGTTTT TGGGTTTGTC TATCTTTTGT	300
CTGTTCCCTT TTTGATGAAG TTTGTCCTTT ATCCAGTACC TTATCAAGAA CGTAATCGTC	360
TTGCTGATTT GTTAAAGAG GAGACAAATA CGGAAGATGC TATCTCATGC ATGGGATGAT	420
ACTGCGACTC TTTATCGTAA GAGTGAGCGC TTGTCCCATC GGCGATTTTG TCCCCGTGTC	480
ACTATACAGC AACTGAGGAA AATCGTAATA AGTTACTTAA TGACTTGAAA GAAAAACAAC	540
CTAAGGTGAT TGTGGTAAAT GATAAGGTGG TAGTCTGGTC TGAAGTGGA ACACCTCTTAA	600
AAGAAAATTA CCAACAAGTA AAGACTGATT ACTCAGAGTT TAAAGTCTAT AAAATTAAAT	660
AACCAAATCA ATATCTTGTG TATTTTAAAT AATTTTAGGA TTTTAAACAC AAGATATTGA	720
TTTTTCTTTT TAGAGTGGTA TAATACTTTT TAGAAAGAAC ATTTTAGAAA AGAGCATGCA	780
TATGATTGCA CTAGAAGAAA AAATTACAAT TTGCGCAACT CTCTTCGTCG AGAAACGAGA	840
TGGGAGACGT GTTGTATTTG ATGTGGACAA GATTGACAAG GCTCTCCACA AGGCGGCTGA	900
CAAGGTATG GATGTGACAC CCCTGGTTGA AAAATGCCTC AATGATCTGA CTGAGCGAAT	960
TATTACAGAA ATTCATAGTC GCTTTCACA GGGAATTAAG ATTTACGAAA TTCAAAATAT	1020
CGTAGAACAT GAACCTCTTG AAGCCAAAGA ATATGCGCTG GCTGAGGAGT ATATTACTTA	1080
TCGGACACAG AGGGATTTTG AGCGCTCAAA AGCGACGGAT ATCAACTTTA GTATTCATAA	1140
ACTTCTCAAC AAAGACCAGA CAGTTGTCAA TGAAAACGCT AATAAAGACA GTGATGTCTT	1200
TAACACTCAG CGTGATTTGA CAGCAGGGAT TGTTGGGAAA TCAATCGGAC TGCAAATGCT	1260
TCCTAAGCAC GTAGCCAATG CCCACCAAAA GGGGATATC CACTATCACG ATTTGGACTA	1320
CAGTCCCTAT ACCCTATGA CCAACTGCTG TTTGATTGAT TTTAAGGGTA TGTTGGAAAA	1380

717

TGGTTTAAAG ATTGGAAATG CAGAGGTAGA GAGTCCCAAG TCTATCCAGA CTGCGACAGC	1440
ACAGATTCTCT CAAATCATTTG CCAACGTTGC TTCTAGCCAG TACGGTGGCT GTTCAGCTGA	1500
CCGTATCGAT GAAATTTTGG CGCCTTATGC AGAGAAGAAT TATCAAAAAC ATCTCAAAGA	1560
TGCAGAAGAG TGGGTATTGC CTGAAAAACA GGAAGATTAC GCTTGGGAAGA AAGCGCAAAA	1620
GGACATCTAC GATGCCATGC AATCTCTTGA GTATGAAATC AATACTCTCT TCACTTCAAA	1680
TGGACAAACA CCTTTTACTT CGTTAGGTTT TGGTCTGGGA ACCAGTCGTT TTGAACGAGA	1740
AATTCAAAAA GCTATTTTAA ACATTCGCAT CAAGGGTCTT GGTTCAGAAC ACCGTACGGC	1800
TATCTTTCCT AAACCTATCT TTACGCTTAA AAGAGGCCTC AACTTAGAGG AAGGAACTCC	1860
CAACTATGAC ATCAAGCAGT TGGCTCTAGA GTGTGCAACC AAGCGGATGT ATCCAGACGT	1920
CTTGCTCTAT GATAAGATTG TTGATTGAC AGGTCTTTTC AAGGTGCCCTA TGGGCTGCCG	1980
TTCTTTCCTT CAAGGGTGA AGGATGAAAA TGGTGTAGAA GTCAATTCAG GTCGCATGAA	2040
TCTGGGTGTT GTGACGGTTA ATCTGCCTCG TATTGCTCTT GAGTCTGAAG GTGATATGAA	2100
TAAGTCTGG GAAATCTTCA ACGAGCGAAT GAATATCGCA GAAGATGCTC TTGTTTACCG	2160
TGTCGAACGC ACTAAAGAGG CGACACCAGC GAATGCTCCT ATTCTTTATC AGTACGGTGC	2220
TTTTGGCCAT CGTCTAGGTA AAGAAGAAAG TGTTGACCAG CTCTTTAAGA ATCGTCGTGC	2280
GACCGTTTCG CTGGGCTATA TCGGCTTGTA TGAAGTAGCG ACAGTTTCTT TTGGTAACAG	2340
CTGGGAAAGT AATCCAGATG CTAAGGAATT CACGCTAGAC ATCATTCACG ATATGAAACG	2400
CCGTGTAGAA GAGTGGTCAG ACCAATATGG CTACCATTTC TCTATCTACT CAACACCATC	2460
CGAAAGTCTG ACAGACCGTT TCTGCCGACT AGATATAGAC AAGTTTGGCT CTATTCCTGA	2520
TATCACAGAC AAGGAATACT ACACCAACTC TTTCCACTAC GATGTTCGTA AAAATCCAAC	2580
ACCGTTTGAA AAATTGGAAT TTGAGAAAGT CTATCCGAA GCAGGTGCGT CAGGTGGTTT	2640
CATCCATTAT TGTGAGTATC CAGTCCTTCA GCAAAATCCA AAGGCCTTGG AAGCTGTCTG	2700
GGATTATGCT TATGACCGTG TAGGCTATCT AGGCACCAAT ACTCCGATTG ACCGTTGCTA	2760
CAAGTGTGAC TTTGAAGGGG ATTTTGAACC AACTGAGAGA GGGTTTGCTT GTCCAAACTG	2820
TGGCAATAGC GACCCTAAAA CAGTAGATGT GGTGAAACGA ACTTGTGGCT ACCTAGGTAA	2880
TCCTCAAGCA AGACCGATGG TCAACGGGCG TCACAAGGAA ATCGCTGCGC GTGTCAAACA	2940
TATGAATGGT TCAACGATTA AAATAGCTGG GCATCAAGTA ACAAATTAGA AAGAAATGAA	3000
ATGGGAAAAT ATCAACTAGA CGATAAGGGG CGCGCACAAG TGACCCGTTA TCACGAGAAA	3060
CACTCTAAAG GTGGAGCTGG TAAGAAAGAA CGCTTGCTTA GCTTCAGAGA ACAATTTTTA	3120

718

AACAAGAACA AGAAAAATA AAAGTGAGAG CCAGCTCTCG CTTTCTCAT AGTGGGAGGT	3180
AAGGATGGAA TTACGCAGAC CAAGATTAGC GGATAAGAAA GCTGTTTATG ATATGATGAC	3240
AGAGTTTGAA AAATTCAGT CGCCTCACGA CGGCGGTTC TGGGATACAG AGAACTTTGT	3300
GTATGAAGAC TGGTTAGAAA GCAATCAGGA ACAGGAAATG GGGATTAATC TGCCTGAAGG	3360
ATGGGTTTCT GCAATTCAGT TAGTGGCTTT TTCTGAGAAA GGTCAGCAG TTGGATTCT	3420
TAATCTCCGG TTGCGCCTCA GTAACCTTCT ACTAGAAGAA GTGGGCCACA TTGGCTACTC	3480
CATTCGTCCA TCTGAAAGAG GCAAGGGTTA TGCAAAAGAG ACTCTCCGTC AGGGCTTGCA	3540
AGTTGCTAAG GAAAAGAACA TCAAGAAAGC TCTGGTGACC TGTAGTGTA ATAATCCTGC	3600
TAGCAGAGCA GTCATTCTAG CAAATGGTGG AATATTTGAG GATGCTCGCA ATGGAGTCGA	3660
GCGTTATTGG ATAGAGGTAG CGAATGAATA ATCCAAAACC ACAAGAATGG AAAAGCGAGG	3720
AACTTAGTCA AGGTCGTATC ATTGACTACA AGGCCTTTAA CTTGTGGAC GCGAAGGCG	3780
TGCGCAACTC TCTCTATGTA TCAGGCTGTA TGTTTCACTG CGAGGGATGT TATAATGTTG	3840
CGACTTGCTC TTTTAATGCT GGCATTCCCT ATACAGCAGA ATTAGAAGAG CAGATTATGG	3900
CAGACCTTGC CCAACCTAT GTTCAAGGCT TGACTTTGCT GGGAGGGGAG CCTTTTCTCA	3960
ATACTGGGAT TCTCTTGCCA CTTGTTAAGC GGATTGCGAA GGAATTGCCA GACAAGGACA	4020
TCTGGTCCTG GACCGGCTAC ACTTGGGAAG AAATGATGTT GGAAACTCCA GATAAACTGG	4080
AATCTTGTC ACTGATTGAC ATTCTTGTCG ATGGAAGATA TGATCGAACT AAGAGAAATC	4140
TTATGCTCCA GTTTCGAGGT TCATCTAACC AACGAATTAT CGATGTGCAA AAATCGCTCA	4200
AAAGTGGGCA AGTAGTGATT TGGGACAAGC TCAATGACGG AAAAGAAAGC TATGAACAGG	4260
TGAAGAGAGA ATGAAGAAAA AGGACTTAGT AGACCAACTA GTCTCAGAGA TCGAGACGGG	4320
GAAAGTCAGG AACTGGGAA TATACGGTCA TGGAGCTTCA GGTAAATCAA CCTTTGCACA	4380
GGAATTGTAC CAAGCTTTAG ATTCTACTAC AGTAAATTTG CTAGAGACAG ATCCTTATAT	4440
CACCTCAGGA CGCCATCTGG TAGTACCCAA GGACGCGCCG AATCAAAAGG TGACAGCCAG	4500
TCTGCCAGTG GCGCATGAAC TGGAGAGTTT GCAGAGAGAT ATCCTTGCTT GCAGGCGGGT	4560
ATGGATGTCT TGACAATTGA AGAACCTTGG AAGGCTAGTG AGGTCTTGTC TGGAGCCAAA	4620
CCAATTTTGA TTGTCGAAGG GATGTCTGTT GGCTTTCTAC CCAAGGAAGT CTTTGAAAAA	4680
ACCATCTGTT TCTACACGGA TGAGGAGACC GAATTAAAGC GACGCCCTGC TAGAGATACG	4740
ACTGTGAGAA ATCGCGATGC GG	4762

(2) INFORMATION FOR SEQ ID NO: 92:

(i) SEQUENCE CHARACTERISTICS:

719

(A) LENGTH: 3832 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

GATGCAGGTT TCGACCCACA TATTCCAGAA AATTACTTTA AAGATGATGA TGTTAATCAG	60
GTACCTTGTC TTTGTTGGTC TTCATCTGCA GCCCTCTTTT TCAGTAATTG GGTAGACCAT	120
GCGGTCTATC AGGAGACGCC TTTTGATTGG AGAAAGATAG AAGATGATGC ATCTGCATAT	180
GGGTATTTAT AAGAGGAATT ATGACATATT TAGACGCTTT TAAATCAGGT ACCTTGGTTT	240
TACCGAGTGC CCTGCTCTTG CATTTTAAGG AACTCTTTCC TTCTAGCGAC GATTTTCTGG	300
TTTGCCAATT TTTCTATTTG CAAAATACGA CAGGCTTAGA AGAAATGTCG CCAAGCCAGA	360
TTGCTGAAAG GATTGGCAAG GAAATTTTCG ATGTCAACCA GTCCATTTCT AATCTGACGG	420
AAAGGGGACT GCTCCAGTAT CGTACTATCG AATTAAATGG CGAAATTGAA TTGCTCTTTG	480
ATGCTAGTTT GGCCTTGGAA CGTTTGATG ACCTGTTTGG AGCAGTTCAT TCAAGTTCAG	540
ACCAGCTAAC ACCTCAAAAC CAGCTCAAGG ATTTGGTGGA AACCTTCCAG CAGGAGTTGG	600
GACGATTGTT GACGCCTTTT GAGATTGAGG ATTTGACCAA GACACTAAAG GAAGATGGAA	660
CCAGTGCTGA CTTGATTAAG GAGGCTCTTC GTGAAGCTGT TTTGAATGGA AAACCAAAC	720
GGAAGTACAT TCAGGCGATT TTGAGAAACT GGCGCCATGA AGGAATCAAG AGTGTGGCTC	780
AAATTGAGGC CAAGAGAGCA GAAAGAGAAG CAAGCAATCC TCAGTTGACA CAGGTATCTG	840
CAGATTTTAT AAATGCCATG GATCTCTGGA AGGATTAATC CATGCAAGTA GGCTTGAAAT	900
CCGAGTAAGA TTTGCAAGCT GTGTATAATT GTGATAGAAT AAATAGAAAA TAAATTGAAA	960
AAAGAGGTAT GTGAAATGTC ACGTAAACCA TTTATCGCTG GTAACCTGGAA AATGAACAAA	1020
AATCCAGAAG AAGCTAAAGC ATTCGTTGAA GCAGTTGCAT CAAAACCTCC TTCATCAGAT	1080
CTTGTTGAAG CAGGTATCGC TGCTCCAGCT CTTGATTGTA CAACTGTTCT TGCTGTTGCA	1140
AAAGGCTCAA ACCTTAAAGT TGCTGCTCAA AACTGCTACT TTGAAAATGC AGGTGCTTTC	1200
ACTGGTGAAA CTAGCCCACA AGTTTGTAAA GAAATCGGTA CTGACTACGT TGTATCGGT	1260
CACTCAGAAC GCCGTGACTA CTTCCATGAA ACTGATGAAG ATATCAACAA AAAAGCAAAA	1320
GCAATCTTTG CGAACGGTAT GCTTCCAATC ATCTGTTGTG GTGAATCACT TGAAACTTAC	1380
GAAGCTGTA AAGCTGCTGA ATTCGTAGGT GCTCAAGTAT CTGCTGCATT GGCTGGATTG	1440
ACTGCTGAAC AAGTTGCTGC CTCAGTTATC GCTTATGAGC CAATCTGGGC TATCGGTACT	1500

720

GGTAAATCAG	CTTCACAAGA	CGATGCACAA	AAAATGTGTA	AAGTTGTTCG	TGACGTTGTA	1560
GCTGCTGACT	TTGGTCAAGA	AGTCGCAGAC	AAAGTTCGTG	TTCAATACGG	TGGTTCTGTT	1620
AAACCTGAAA	ATGTTGCTTC	ATACATGGCT	TGCCCAGACG	TTGACGGTGC	CCTTGTAGGT	1680
GGTGCCTCAC	TTGAAGCTGA	AAGCTTCTTG	GCTTTGCTTG	ACTTTGTAAA	ATAATCAGTA	1740
AGTAGCAAAA	GCTAGGTGGA	ACAGCATTCA	GATGTCTGTT	ACATTTTTTA	TAGGAGAGAA	1800
AGATTGAAAA	CAAAAATTGG	ATTAGCAAGT	ATCTGTTTAC	TAGGCTTGGC	AACTAGTCAT	1860
GTCGCTGCAA	ATGAAACTGA	AGTAGCAAAA	ACTTCGCAGG	ATACAACGAC	AGCTTCAAGT	1920
AGTTCAGAGC	AAAATCAGTC	TTCTAATAAA	ACGCAAACGA	GCGCAGAAGT	ACAGACTAAT	1980
GCTGCTGCCC	ACTGGGATGG	GGATTATTAT	GTAAGGATG	ATGGTTCTAA	AGCTCAAAGT	2040
GAATGGATTT	TTGACAACCTA	CTATAAGGCT	TGGTTTTATA	TTAATTCAGA	TGGTCGTTAC	2100
TCGCAGAATG	AATGGCATGG	AAATTACTAC	CTGAAATCAG	GTGGATATAT	GGCCCAAAAC	2160
GAGTGGATCT	ATGACAGTAA	TTACAAGAGT	TGGTTTTATC	TCAAGTCAGA	TGGGGCTTAT	2220
GCTCATCAAG	AATGGCAATT	GATTGGAAAT	AAGTGGTACT	ACTTCAAGAA	GTGGGGTTAC	2280
ATGGCTAAAA	GCCAATGGCA	AGGAAGTTAT	TTCTTGAATG	GTCAAGGAGC	TATGATGCAA	2340
AATGAATGGC	TCTATGATCC	AGCCTATTCT	GCTTATTTTT	ATCTAAAATC	CGATGGAAC	2400
TATGCTAACC	AAGAGTGGCA	AAAAGTGGGC	GGCAAATGGT	ACTATTTCAA	GAAGTGGGGC	2460
TATATGGCTC	GGAATGAGTG	GCAAGGCAAC	TACTATTTGA	CTGGAAGTGG	TGCCATGGCG	2520
ACTGACGAAG	TGATTATGGA	TGGTACTCGC	TATATCTTTG	CGGCCTCTGG	TGAGCTCAAA	2580
GAAAAAAAAG	ATTTGAATGT	CGGCTGGGTT	CACAGAGATG	GTAAGCGCTA	TTTCTTTAAT	2640
AATAGAGAAG	AACAAGTGGG	AACCGAACAT	GCTAAGAAAG	TCATTGATAT	TAGTGAGCAC	2700
AATGGTCGTA	TCAATGATTG	GAAAAAGGTT	ATTGATGAGA	ACGAAGTGGG	TGGTGTCAAT	2760
GTTCGTCTAG	GTTATAGCGG	TAAAGAAGAC	AAGGAATTGG	CGCATAACAT	TAAGGAGTTA	2820
AACCGTCTGG	GAATTCCTTA	TGGTGTCTAT	CTCTATACCT	ATGCTGAAAA	TGAGACCGAT	2880
GCTGAGAGTG	ACGCTAAACA	GACCATTGAA	CTTATAAAGA	AATACAATAT	GAACCTGTCT	2940
TACCCTATCT	ATTATGATGT	TGAGAATTGG	GAATATGTAA	ATAAGAGCAA	GAGAGCTCCA	3000
AGTGATACAG	GCACTTGGGT	TAAAATCATC	AACAAGTACA	TGGACACGAT	GAAGCAGGCG	3060
GGTTATCAAA	ATGTGTATGT	CTATAGCTAT	CGTAGTTTAT	TACAGACGCG	TTTAAAACAC	3120
CCAGATATTT	TAAAACATGT	AAACTGGGTA	GCGGCCTATA	CGAATGCTTT	AGAATGGGAA	3180
AACCCTCATT	ATTCAGGAAA	AAAAGGTTGG	CAATATACCT	CTTCTGAATA	CATGAAAGGA	3240
ATCCAAGGGC	GCGTAGATGT	CAGCGTTTGG	TATTAAGCGA	TGATTTGAAA	GAGGGATGTG	3300

721

ATAGTAGCAC CCTCTTTTTC TTTGTTTTAT GATAGTTCAT CCTCGAGTAA ATTCAAGTTC	3360
TTGCTCGGAA ATGAAGCTTA TATAGTAGAT TGAATATAGA CAAATACCTT GTGATTGGTA	3420
AAACATTTTA GAAATTCATT TACCTTTCCT AATCGACTTG GTTTCATCTT ATTTCAATCT	3480
ATTATAGTAT TGGGGAATTT CTTCAAACCA CATCAGCTTG GTCAGTTCCTA CCTGCGACCT	3540
CAAAACTTGT GCTTTGGTCA AGCTGGGTTT AGTTTCCTAG TTTGCTGATG GATTTCATT	3600
GACTATAAGC ATCCAACCCT CTTTTTGTCT TCTAAAGAAT TCTTAAATTA TCAGTCTATT	3660
GCAACTTTTC TCATATAAGT TCTTTGTCTT GCTATTGGTT TTCCTTAGTA GTATACTAAG	3720
GTAGTAATCA TTAAGAAGTG GTTACAAAAA ATAATGAATG AGGTAAAGAA AATGGTAGAA	3780
TTGAAAAAAG AAGCAGTAAA AGACGTAACA TCATTGACAA AAGCAGCGCC GG	3832

(2) INFORMATION FOR SEQ ID NO: 93:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 10690 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

TGAAAAAATC CTCATGAACC TGGCGCCAAT AGACAAAGTG CTTGTTTCCC TCACCTTCCT	60
TATAGGCATG GTCAGCTGAC ACTCGATTGA AGGGTTTAAC AGAAACCTTT GTAATTTCGA	120
CAATGCAGAC AGCCTGATTT TGAATATCTA AAATGACATC GAAGGTCCCT ACTTGGGGAA	180
GTGGTTCGTC TTCTAGCACA TAGAGGTCAT AGGCTGATGC TGTGCTGTC TTTTCTCCTT	240
TAAACACCAA ATCCGCTAAA AGGTCTGGTT CAACTCCAAA AGCCCAGGCA TCGATTTCAT	300
CTCCGATCAA AGGATTGATT TGCTTGATTT TATTCCACAT TTCTTGCGGT ATCATGGGTG	360
CTCCTTTGTA ATTTTTTACT TTCTTCTTTT ATGTGTTTAA GATGATCTGG ATGGTCAATC	420
TCTAAATCAA AAATCTCTGG AATAGAACTG TAGTGGATAA TGCACTTGAT ACCCAACTGA	480
TTCAATTTTT GTATGAAAGA AGTATTCAGA TAGCCTGCTA CAGCAAAATC AATCTTGTTT	540
TTTCTTGCTT TATCCTGCAT ATCTCTTAGC ATATCTAACA TTATTGGACT TTCCATATCA	600
TGCCATTGAC TGTTTCTCAT AGTCGCAAAA ACAAAGGAAG TCAAATCATT CATTCCAACT	660
ACAATCTTTG AAATGCCCGT TTCCAGTATA CTAGATAAGT CAAAATACGC TGACGGTAAT	720
TCAATCATCG TTCCGACTTT CCCAGTAAAA CCCTGCTGAC GCAATACTGT AATAGCTTGT	780
TTTAATTGGT CGGCATCATT GACAAAAGGA AAGATAACAG ATAGATTGGG GTTGGTTTGA	840

722

TAAACTTCTG TAACGACATG TGCTTCAGCC TGAAATTCAT CCAAACACGC CAGTAAACGC	900
CTAGTTCCCTC TATAGCCAAA CAAGGGATGC CCTTCGTCAA AAAACTCTTT AGTCCCCACT	960
AAACAATTGG CTTCTGTATT CGTTAATTCA GTAAAACGAT ACCAAACTTC CTTACCTAAG	1020
TAAAAGGAGC AAATAGTATC AAGATAATCT TTCACAAATC CCTGACAACT TTGTAATAGT	1080
ATATTTTGAT TGAGCTCTCT CAATAAGTAT TCCCCACGAA TCATGCCGAC GTGGTGAAAT	1140
AGTTGAGGAT AAATTTTTC AAGAATTTT TCGCCACTAA GGGCAAGTTG ATTTCTCATC	1200
ATTCACCTTC CAATTCATGT AAGAAGTCTT GTCCAGTTCT GGAAATCCTA ATAATTCAGA	1260
CTTAACCTTC AAGACTAATG GCGATGCATT TTCTTCTGTA ATCTCTTGAA TATCCATCCA	1320
AATATATCCA AGTGAATCAT TCGCACCATC AGACACAGCT TCCGAAATCG TAACTTGAGG	1380
TGCACTCTCA TTCATTTCAA CATCATACAA GGCTATGACA TGGTGAACCA TAAAATTTT	1440
TAACTCTTCC CTGACGAAAA CATCGTAGAT TCGAGGATTA GAGTAGCTTC TAACAGTAAA	1500
TCCCGTCTCT TCCATAACTT CTCTAGTCAG CGTTTCCGTC AGTCCTTCAC CAAGTTGCTG	1560
ACTGCCTCCA GGTAGATCAT ACCGATGTTG ATAAGGGCCT CTCGTTTTTT CAATGCAAAG	1620
TAACTTTCCA TTTTCAAAGC AAACACAGTA GACCCCAAAG TGATTTTGA TTTCCATCCA	1680
ACTCCTCCTA CTTCAAAGAC CAGCCACCAT CTATTGTCAA GATTTGTCTT TGCATGGCGC	1740
TCGCTTTTCC ACTTGCTAAA AAAAGACTAA GCTCTGCTAT TTCCTCTGGC TCAATCCAGC	1800
GCTTGATTGG GGTTCACCTA GCCACCCAGT CAGCCAAACC ACCTGGTTCA AAATCCGCAG	1860
CGGTCATAGC TGTCTTGACT GCTCCTGGAG CGATACCAA GACCTGAATC CCAGCTTCAG	1920
CATAGTCTAG AGCCAACTGC TTGGTGAAGC CAGCCAAGGC ATGCTTGGAT GAAGTATAGG	1980
CGTGACCACC TCCACCTGCT AGGCTAGAAG CAATGGAACA CATATTGATG ATGATTCCTT	2040
TTTATTTTC CAGCATTTGT GTCAAATAAT ACCGAGTCAA CTCTACTGGA ATAATGTAGT	2100
TGATTTCAAA AATCTCTTGA ATGTCCTGCG CCGTTTGTTT CAACAGTGGT TTGTAATCAT	2160
CCAAAACCTC AGCAGTATTA CACAAAACAT CCACCTGAGG GCACCAGTCA AAAATAGGTT	2220
CCAAGTCCAA GGTCAAATCT CTCTGTAAAA AGCGAAAATC ACCCTCTAAG AGTGGCTTTT	2280
CACCTTGCTC AACTCCATAA ACTTGATAGC CCTTCTCTAA AAAGAGGCGA GCTTGAGCCA	2340
ATCCGATCCC TGAACCTACT CCTGTAATGA GTACACGTTT AGTCATGCAC TTCTACCCAA	2400
TCCGTTGCCA AAACATCACA AACTGTCTGG CTCCACATGG AAAAACCTTC TCCTTCGCCA	2460
GAAACGTTGA TTAGGAAATA AGGTGTCATT TCAAGTGCAA GCCCATTTTG CTCGATGGTA	2520
TCAAAGAGTT GGACATAGTT TTCCGCACCT CCCCACCAG TTCGTACATA TTTTCTCTTA	2580
GCCTTTAACC CAGGCAGGAT CTCTTCAAAT GTCATGTTTT TCTCCTTTAA TTCTACATTC	2640

723

TTCATTTAAT	TATAGCAAAA	AACCGCTTTA	TACGGCTTTT	TGAATGTGAG	TTATTCAAAC	2700
CTGCTACTAC	TTACGGCAAA	TTATTCCCTG	CAGCAAGATA	AAT'TTCATAC	CATTCTTTTC	2760
TTGTTAAGCT	AAAGTTTGCC	GCTCGGCTAA	CTTCTCTCAA	GTGCTTAGGA	TTTGTGTAC	2820
CTACGACTGC	CTGCATTTT	GCTGGATAAC	GCAATATCCA	AGAAATGGCA	ATAGTTGAAG	2880
AGGTACTCC	ATATTTAATA	GCTAAACGAT	CAAGTACTTG	ATTTAAAGCT	TGAAATTTCT	2940
CATTCCAAC	AAAATTCCCT	TTAAAATACC	CGAATTGTAA	GACAGACCAT	GCTTGAATGA	3000
CCACATCGTG	TAATTGGCAA	TATTCAAAA	TGCTGCCATC	TCGCATAGCT	GCTTGACTAT	3060
CTTCCATATT	AACATGAAAA	GCTGATTCAA	ATCCTGGAGT	AAAAGCCGCA	CTCAATTGTA	3120
GCTGATTAAC	AGCTAACGGC	TGCTTGACAT	CTTTTAAAG	CAACTCCATC	ATCATAGGAT	3180
TTTGATTAGA	AACTCCAAA	TCTCGAATT	TACCTTGT	ATAAAGGAGA	TTAAAGGCTT	3240
CTGCTACTTG	GTGAGATTCC	ATCAAAGCAT	CTGGTCGATG	AAGGAGCAAG	CTATCTAGAT	3300
GATCAATCTT	CAATCTTGC	AAAATACCGT	CTACTGATT	TATAATATAG	TCCTTAGAAA	3360
AATCAAAATA	GGTAAATCT	TCAATGCGAA	TGCCACATTT	GGACTGAATC	CACATCTTTT	3420
CTCTTAAATC	TGGACGATT	TTTAGGACAA	GACCTAACAG	TTCTTCACAA	CGACCACGAC	3480
CATAAATATC	AGCCAAGTCG	AAGGCATTGA	TTCCAACAGA	AAGTGCTGTT	TCTACAAGCT	3540
CTTCAACTTC	TTTACAGAT	TTATCTTTTA	TTCTCATCAT	TCCGAGAACA	ATTTCTGATA	3600
ATTCTTTGTC	ATCTTGACCA	AGAGTTATGT	ATCTCATCAA	ATTTTCTCC	TTTAATTTCT	3660
AACATTCCTC	CCTTCATTAT	AACAAAAAAC	CGCTTTGCAA	CGACTTTTTC	ACTATACTTC	3720
ACTCCATTTT	ATCTTCTTAA	ACCCACGGAA	CAAGACAAAG	ATTCCAATAA	AGAGGACAGC	3780
TAAAGGAATA	ACTTTTGTA	GGAAAACATT	TGAAATTCCC	ATCCACTCAT	AATAACGGAG	3840
CAGAGAACCC	ACCACAAGAT	GGGCAATAAT	CATACTGACA	AATGGACGAA	AGACCGCTTC	3900
TTTCCAATTC	CAAATACCGA	TAAGTAGCGA	AATCGTAAAG	ACAGACAAAC	TATCCCAGGG	3960
AGCCGGAATA	TAAAAGGCTC	CTTCTTGTAT	GAAGCTTGCC	ATTCCTACAT	ATCCTAAAAC	4020
AACTAGAAGA	ACTATAGTCC	CAACAACAAT	GTAAGTGCCA	ATTTTCATTT	TAGGAGAATC	4080
TTGGACTAAA	CTTCTTCGTA	AAATTGTGGC	CACAAGTCCA	AATCCAATCA	GAAAAATAAG	4140
AAGTTGCCCT	AAAAATGTGA	GCAAATTGAC	TGTTAAGAGA	GGACCTTTAG	AAAAATCACT	4200
TAGTAGTTGA	TAATAACGTA	ATACCGCCAG	GACAAGAATT	GGCGTCAAAA	GGGACTCTTT	4260
GATAGAACTG	CGAGGTGCTC	CCTTGAGAAT	CTCTTTCATT	ATTTTTTTAG	GATTCTTACC	4320
TAGATAATCC	TCTGCACTCA	TGCCATCTCG	TTCTGCTTCT	GAGAAATCTA	GCATCATCAA	4380

724

ATAGATCTGC	TCTCTGAGAT	AGTCTTCATC	ATAGAGAAAT	CCAGCAAGAT	TAAAACTTTC	4440
CCACAACCTCC	TCAAAATACT	TTTGATTCTC	CTCAGAAAAAC	TCATGTAGCA	AAGCGCTTGT	4500
TTCTTCGTAA	TACTTCATTT	TCTTCATGGT	TTAACCCCCA	TTCTTAATCC	CTTCTACTTT	4560
TTGACTCAAA	TCGTCCCAT	GTTGCCAAAA	GACTGAGACA	CGCTCTTCTC	CTTCTTTCAT	4620
TAATGAAAAA	TACTTCCGAT	CTGGACCATC	TGGCGACGGG	CGCATGTCGC	CTCTTATCCA	4680
TTGATTTTTT	TCTAACTTTT	GCAACAAAGG	ATAAATAGTT	CCTGGAACGA	TAGTATCAAA	4740
TCCAGCCTCT	CGCAAAGTCT	GAACCAACTC	ATAACCATAC	CGCTCTTTTT	GACCAATCAT	4800
ATCCAAGACA	CAACCTTCAA	GAACACCTTT	TAATAGCTGA	GTTTCTTTCA	TCACTTCTCC	4860
CTTCTAATCT	ATTTTGTAAT	ACCTACTAGT	GACTTCACCT	ATAGTATATC	ACTTCTACAC	4920
TAGTTTGTA	AGCATAATAG	TTAATACTCT	TCGAAAATCT	CTTCAAACCA	CGTCAGCGTC	4980
GCCCTACCGT	ATGTATGGTT	ACTGACTTCG	TCAGTTTCAT	CTACAACCTC	AAAAACATGT	5040
TTTGAGCTGA	CTTCGTCAGT	TTCATCTACA	ACCTCAAAAC	AGTGTTTTGA	GCTGACTTCG	5100
TCAGTTTCAT	CTACAACCTC	AAAACAGTGT	TTTGAGCTGA	CTTCGTCAGT	TTCATCTACA	5160
ACCTCAAAAA	CATGTTTGA	GCTGACTTCG	TCAGTTTCGT	CTACAACCTC	AAAACAGTGT	5220
TTTGAGCAAC	CTGCGGCTAG	CTTCCTAGTT	TGCTCTTTGA	TTTTCATTTGA	GTATAAATAA	5280
AAAAACAGAA	CTAGCCTGAA	CTAGTCCTGT	CTACTTTTAC	CCAATCACAC	TTCCATTTGG	5340
TACAGCTGGA	TCAACTGTGA	GAAGGGTTAA	TTTGCCATCA	TGTTTCAGCTG	AGAGAATCAT	5400
ACCCCTGGCTG	ACATATTTTT	TCATCATTTT	ACGTGGTTTG	AGGTTAGCAA	CGATTGGAAC	5460
TTTCTTGCCG	ACCAATTCTT	GTTCAATTGG	ATAGTATTTT	GCAATTCCTG	AAAGAATCTG	5520
ACGATCTTCT	CCATCACCAG	CATCCAAGCG	GAATTGAAGC	AACTTATCTG	AACCTTCTAC	5580
TTTAGACACT	TCTTTGACTT	CTGCGACACG	GATTTCAACC	TTGTCAAAGT	CTTCAAACCTT	5640
GATTTTCATCC	TTGTTTAGTT	TGAGCTCAAC	TTCGTCCGGA	TTCCATTCTT	TTTCGACTGC	5700
TGGTTTATTG	CCTTCCATTT	GTTCCCTTGAT	ATAGGCGATT	TCTTCTTCCA	TATTTAGACG	5760
TGGAAAGATA	GGTGTTCCTT	TGGCAACTAC	AGTCACATCT	GCTGGGAAGT	CAGCCAAACT	5820
CAAGTTTTC	AGACTAGAAA	CTTCTTCCAA	ACCAAGTTGA	GTCAAAACTG	CACGACTAGT	5880
TTCCATCATA	AATGGTTCAA	TCAAGTGAGC	AACTACACGA	ATGCTGGCTG	CCAAGTGGCT	5940
CATGACACTT	GCCAATTGGT	CACGAAGAGC	TTCATCCTTG	GCCAAGACCC	ATGGTGCGGT	6000
CTCATCGATG	TATTTATTGG	TACGAGAGAT	CAGAGTCCAG	ACTGCTTCAA	GCGCACGTGG	6060
ATAGTCAACT	GCTTCCATGT	GTGTATGGAA	GTCTGCGATT	GATTGTwCTG	CAACCTCAGC	6120
AAGAACATGA	TCATATTTCAG	TCACACCTTC	TACATAGGCA	GGGATTTGTC	CATCAAAGTA	6180

725

CTTATTAATC ATGGAAACCG TACGGTTAAG GAGGTTCCCA AGGTCATTAG CCAATTCATA	6240
GTTGATACGG CCGACATAGT CTTCAGGAGT AAAGGTTCCG TCTGAACCAA CTGGAAGGTT	6300
ACGCATGAGG TAGTAACGAA GTGGATCTAG TCCATAACGC TCTACCAACA TTTCAGGGTA	6360
AACGACATTC CCTTTTGA CT TAGACATTTT TCCGTCTTTC ATGACAAAACC AACCATGGGC	6420
AATCAAACGA TCAGGTAATT TAACATCCAA CATCATAAGA AGGATTGGCC AGTAGATAGA	6480
GTGGAAGCGA AGGATATCTT TTCCTACCAT ATGGAAGACT GTTCCATTCC AGAACTTGTC	6540
AAAGTTACCA TGTTCTGCTT GAGCGTAGCC AAGAGCTGTC GCATAGTTAA GAAGGGCATC	6600
AATCCAAACG TAGACAACGT GTTTTGGATT TGATGGGACA GGCACTCCCC ATGTAAAGGT	6660
TGTACGAGAT ACCGCCAAAT CTTCCTAAGCC TGGCTCGATG AAGTTGCGTA GCATTTTCATT	6720
AAGGCGACCA TCTGGCGTGA TAAATTCAGG ATGAGCTTTG AAAAATTCGA CCAAACGGTC	6780
TTGGTATTTG CTAAGGCGAA GGAAGTATGA TTCTTCAGAA ACCCATTCAA CCTCATGACC	6840
TGATGGAGCA ATACCACCAG TCACATTTCC AGCTTCATCA CGGAAACTT CTGCCAGCTG	6900
GCTTTCTGTA AAGAATCTT CGTCTGATAC TGAATACCAA CCAGAGTATT CACCCAAGTA	6960
GATATCATCT TGAGCAAGTA AGCGTTCAAA GACTTGTCG ACAAATTTT CATGGTAGTC	7020
ATCAGTTGTA CGGATAAATT TATCGTATGA GATATCTAGT AATTGCCAGA GTTCTTTAAC	7080
TCCAACCGCC ATTCCATCAA CATAGGCTTG AGGTGTAATA CCAGCTTCTT CCGCTTTCTG	7140
CTGGATTTTC TGACCATGTT CATCAAGACC TGTCAGATAA AATACATCGT AGCCCATCAG	7200
GCGTTTGTA CGTGCTAGGA CATCACATGC GATAGTTGTG TAGGCAGAAC CGATATGAAG	7260
TTTCCCAGAT GGATAGTAAA TCGGCGTTGT AATATAAAAA TTTTTTTCAG ACATAATTTT	7320
TCCTTTCCAG GCAAATGAAA CCTGTTTTC TAACACTTCA TTATATCACA TTTTAAATGA	7380
ATTTCAATAG GGAAATCCAT ACAAAAACAA GATAGACGAG TGTCATCTT GTTGATCTCA	7440
TTCATAACGA AGGGCTTCAA TTGGATCAAG TTTCGATGCC TTGTTGGCTG GCAAGACTCC	7500
AAAAATCATA CCAAACTAG CCGAACTGC AAGACTAAAT AGGGCGACTG GGATTGATAC	7560
TCCAACCTCT ATACCTTCTA TTAAACCTTG CAGTAACAAA CCTGCTAAGg CAGTTAAACC	7620
ACTTGCAATT GTCAAGCCAA TTAAGCCACC TAACAAGGTC AAAATCATGG ATTCAATCAA	7680
AAACTGAATT AAAATATTGG CACGTGTTGC ACCCAAAGCC TTACGAAGAC CAATCTCACG	7740
AGTGCGCTCT GTCACCGAAA CCAGCATGAT GTTCATGACA CCAGTTCCTC CAACAAAGAG	7800
AGAAATCCCT GCGATGGAAC TAATAATCGT CGTCATAAAA CTAAACGATT GTTGAATTC	7860
TGCAAATACA ACGGACTCAT CTGCCACCTG GTATTCTCCC TGTTGTAAGC CTGCAAGCTC	7920

726

TGTCATTTTT	CGTGCCAGTT	CTGGACCCAG	AGTTGGGGTT	AAACTGGTAT	CATTCACTCG	7980
AAAGACAATA	TTAGCTATTT	CATCTACATT	AAAATTTCGA	GCAAGGGAGA	TATTGGTAGT	8040
AATAGGCAAG	CCACCAAACC	CATATATTTT	TGATCTTTTA	GCCTCCGGAC	TAGTATAAAC	8100
CCCAATGACC	CGGTAACATA	ATCCATTGAC	TTCTACAACC	TTGTTAATAG	CCTCTTGAGG	8160
AGATTCAAAT	AAACTAATGG	ACAATTCCTC	ATCTAGCAAA	ATGACACTTG	CAAACCTCTT	8220
GAAATCTTGC	TCTCTCAGAC	TACGACCTGC	AATAATTTC	TTCTTAACAG	CGTCCATGTA	8280
AGTTCTGTTT	CCACCTGTCA	AATTAGCATT	CTCAACCTTT	TTATCTTGAT	AGGTCAAGAT	8340
GGCATTCGTT	GAATTGGTTA	CATAGTAACT	ATCCACTCCC	TTCAGTTTAG	CTGCCTCTTG	8400
GACCCAGGAT	TCTTGCGGTT	TTGGCGGTT	AACAGGAACT	TCCTCTTCCT	TTCCAGAAAC	8460
CGTAAAAGCT	GATTGTTTCT	GAGTAAAAGA	CCCGTCTTTA	CTTTTTTTAG	GAGAGAAAAA	8520
GACGCTAATA	TTTTTCTGAG	ATTTAGTCAT	ATCTTTTATG	ACTTGACGAG	ATAGGGAATC	8580
ACCCAAAGCC	ATAATCACAA	CAACTGATGA	AACACCGATA	ATAATCCCAA	TCATAGTAAG	8640
CAAAGAACGC	ATCTTGTGAG	CCATGATAGA	TGAAAAGGCA	AATTTTCAGAT	TCTGCATCTT	8700
AGTTTTCCTC	CTTTCCTAAC	TGAGCACTGT	CAGACGAAAT	GACCCCATCC	CGAATGACAA	8760
TCTGACGTTT	GGCATAGGCA	GCAATCTCAG	GCTCATGCGT	TACCATGATA	ATGGTTTTTC	8820
CTTCTTTATT	CAAATCAACC	AATAATTGCA	TAATTTGGTT	ACCTGTTTTG	GTATCCAAGG	8880
CTCCTGTCGG	TTCATCCGCT	AGGATAATAG	AAGGATTGTT	TACCAAGGCA	CGCGCAATGG	8940
CTACACGTTG	CTTTTGACCA	CCAGATAATT	CTGAAGGTAA	ATGGTGACTA	CGTTCTGTCA	9000
ATTCAACCTT	GTCTAAATAT	TCCTCAGCCA	ACTTGCGACG	TTTTGAAGAC	GAAACTCCTG	9060
CGTAAATCAA	GGGCAATTCT	ACATTTTGCA	GAGCATTGAG	CTTCGATAGA	AGAAAGAACT	9120
GCTGAAAGAC	AAAACCGATT	TGTTGGTTAC	GGACCTTAGC	TAGTTGTTTT	TCACCAAGCC	9180
CAGCCACTTC	TTGACCTTCA	AGATAATATT	CTCCACTGGT	TGGTGTATCC	AACATGCCAA	9240
TCGTATTTCAT	CAGAGTGGAC	TTACCAGACC	CAGATGGTCC	CATGATGGCT	ACAAATTCAC	9300
CCTCATTCAC	TTCTAGATTG	ATATTTTTGA	GAACCTGCAG	TTCTTGGTCA	CCATTACGGT	9360
AACTTCTGAA	GATATTTTTT	AGACTAATTA	GTTGCTTCAT	CAGCCTTCAC	CTCTTTTCCT	9420
TCTTCCAAGG	AAGATGTTGG	ATTACTGATG	ACCTTAGCAC	CGTTCGTAA	ACCAGAAGTG	9480
ATTTCTTGAT	TTTCTGCGTC	AGCATTTCCC	AATGAAACCT	CAACTTTTTT	AGCCTTTTGT	9540
TGTTTCATCCA	CAATCCAGAC	ATAATTTTTA	CTATCATCCA	TTACTAGACT	GCTAACAGGA	9600
ACAAGAATAG	CCTTAGTTTT	GCTTTTAACC	TCAATGTTGA	CAGAAAAACC	TTGTTTCAAA	9660
TCACCAACCT	CGCCTGTCAC	ATCAATAGTA	TAAGGGTATT	TAGAACCTGT	ATTATTTCCC	9720

727

GCTGCTGGAC TAGCTGCTTC ACCATTGTTT TTAGGATAGT CAGAAATATA GCTTAATTTTC	9780
CCAGTCCATT TTTTATCAGG ATACACTTTA GAAGTAAAGC TTACTTCTTG ACCTACAGAA	9840
AGGTTGGCTA GATTGTACTC AGACAATTCT CCCTTGACTT GTAAATTTTC ATTGCTGACA	9900
ATATGAACCA TAACTTGACT CGCCCCTGTT GGAGATTTAG AAACATTGCT ATTGACTTCG	9960
ACCACAGTTC CCTCTAGGGT ACTGAGAACA GTTGTTCAT CCAATTGACT TTGAGCCTTG	10020
CTTAATTGCG CCGCAGCATC TGCACGCGCA TCACGGGCAT CACCCAATTG AGCGTCAATA	10080
GAAGCAACAG AATTTCCAGC CACTGGAGTT GGGCTTTGCA CCGTTGCATC TTCCTCTCCT	10140
ACTGGCGCTG GTAAGTGTGG AGCCGGAGCT GAAGCGGCTT CATTTCGTGC TTGATTGAGT	10200
TCATTGATAT GACGATCTGC CCTAGCTACT GCTCGACTAG CTGAATCATA GGCCGCCTGC	10260
GCTTCTGAAC TACTGTACTT GACTAAAGCC TGCCCTTCGC TGACCTTATC GCCCACAGAA	10320
ACAAGGATTT CATCTAAATC ACCCTTACTA GCATCAAAAT AAACATATTG TTCATTTTTT	10380
GCTGTTACTG TCCTTGACAA TAAACAGAG GAGGCCACGC TTCCTTCCTT GGCAACAACA	10440
AGATGAGTAG GCTCATCTTT TAGAGCAGTC TGAGAAGGTT GTCTAAAGAG TAAATCCCC	10500
CCAGCACCCA ATACAATAC ACTCGCAGCA CCGATTGCTG CATAAGTTG CCACTTTTTA	10560
GCTTTACCAT TCTTTTCTT CATAATGAAA CTCCTTTTCT TTTTACAAT ACTTTGCTAT	10620
TATACCAAAT TTCCTCCAG CAAACAATAC AGTTCAGGAT TAAACAATCG TTCGGAATTT	10680
TGCTTTTCGG	10690

(2) INFORMATION FOR SEQ ID NO: 94:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8195 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GAGAAAGCGC CCACGTTTCC CCGAAGGGAG AAAGCGGAC AGGTATCCGG TAAGCGGCCA	60
GGGTCGGAAC AGGAGAGCGC AACGAGGGAG CTTCACAGGG GGAAACGCCT GGTATCTTTA	120
TAGTCCTGTC GGGTTTCGCC ACCTCTGACT TGAGCGTCGA TTTTGTGAT GCTCGTCAGG	180
GGGGCGGAGC CTATGGAAAA ACGCCAGCAA CGCGGCCTTT TTACGGTTCC TGGCCTTTTG	240
CTGGCCTTTT GCTCACATGT TCTTTCCTGC GTTATCCCTT GATTCTGTGG ATAACCGTAT	300
TACCGCCTTT GAGTGAGCTG ATACCGCTCG CCGCAGCCGA ACGACCGAGC GCAGCGAGTC	360

728

AGTGAGCGAG GAAGCGGAAG AGCGCCCAAT ACGCAAACCG CCTCTCCCCG CGCGTTGGCC	420
GATTCATTAA TGCAGCTGGC ACGACAGGTT TCCCGACTGG AAAGCGGGCA GTGAGCGCAA	480
CGCAATTAAT GTGAGTTAGC TCACTCATTA GGCACCCAG GCTTTACACT TTATGCTTCC	540
GGCTCGTATG TTGTGTGGAA TTGTGAGCGG ATAACAATTT CACACAGGAA ACAGCTATGA	600
CaTGATTACG AATTCGAGCT CGGTACCCGG AAAATCCAGA AAATGCTTGA AAAAAATCCT	660
AGAAGATGGT ATAATACTAA ATTGTAAGGG TTATCACATA TAACTCAAAA AAAGAAAGAA	720
CAAAAGGAGA GTCAAACAT GGTCTCTAAA GATTTCCACG TAGTGGCAGA AACAGGTATT	780
CACGCACGTC CAGCAACATT GTTGGTACAA ACTGCTAGCA AATTTGCTTC AGATATCACT	840
CTTGAGTACA AAGGTAAATC AGTTAACCTT AAATCAATTA TGGGTGTTAT GAGTCTTGGT	900
GTGCGCCAAG GTGCTGACGT AACTATCTCA GCTGAAGGTG CAGATGCAGA TGACGCTATC	960
GCTGCAATCT CAGAAACAAT GAAAAAGAA GGATTGGCAT AAGGGAAATG ACAGAAATGC	1020
TTAAAGGAAT CGCAGCATCT GACGGTGTG CAGTTGCAAA AGCATATCTA CTCGTTCCAGC	1080
CGGATTTGTC ATTTGAGACT ATTACAGTCG AAGATACAAA CGCAGAAGAA GCTCGCCTTG	1140
ATGCCGCTCT ACAGGCATCA CAAGACGAGC TTTCTGTTAT TCGCGAGAAA GCAGTAGGTA	1200
CGCTCGGTGA AGAAGCAGCT CAAGTTTTTG ATGCTCACTT AATGGTTCTT GCTGACCCAG	1260
AAATGATCAG CCAAATCAAG GAACTATCC GTGCGAAGAA AGTGAATGCA GAAGCAGGTC	1320
TGAAAGAAGT TACAGATATG TTTATCACTA TCTTTGAAGG CATGGAAGAC AACCCATACA	1380
TGCAAGAACG CGCAGcGGAT WTCCGCGACG TGACAAAACG TGTATTGGCA AACCTTCTTG	1440
GTAAAAAATT GCCAAACCCA GCTTCTATCA ATGAAGAAGT GATTGTGATT GCGCATGACT	1500
TGACTCCTTC AGATACAGCT CAATGGACA AAACTTTGT AAAAGCTTTT GTAACCAACA	1560
TTGGTGGACG TACAAGCCAC TCAGCTATCA TGGCACGTAC ACTTGAAATT GCTGCTGTAT	1620
TAGGTACAAA TAACATCACT GAAATCGTTA AAGACGGTGA CATCCTTGCT GTTAACGGGA	1680
TCACTGGAGA AGTGATTATC AACCCAACAG ATGAACAAGC GGCAGAATTT AAAGCAGCTG	1740
GTGAAGCCTA TGCGAACAA AAAGCTGAAT GGGCACTTTT GAAAGATGCT CAAACAGTGA	1800
CTGCTGACGG TAAACACTTC GAGTTGGCTG CTAATATCGG TACTCCAAA GACGTTGAAG	1860
GTGTTAACAA CAACGGTGCA GAAGCTGTTG GACTTTACCG TACAGAGTTC TTGTACATGG	1920
ATTCTCAAGA CTTCCTCACT GAAGATGAGC AGTATGAAGC ATACAAGGCT GTTCTTGAAG	1980
GAATGAACGG TAAACCTGTT GTCGTTCTGTA CAATGGATAT CGGTGGAGAT AAGGAACTTC	2040
CTTACTTCGA TATGCCTCAC GAAATGAACC CATTCCTTGG ATTCCTGCTT CTTCGTATCT	2100
CTATCTCTGA GACTGGAGAT GCTATGTTC GCACACAAAT CCGTGCTCTT CTTCGTGCGT	2160

729

CTGTTACGG	TCAATTGCGT	ATCATGTTCC	CAATGGTTGC	GCTCTTGAAA	GAATCCGTG	2220
CAGCGAAAGC	AGTCTTTGAT	GAAGAAAAAG	CAAACCTTCT	TGCTGAAGGT	GTTGCAGTTG	2280
CGGATAACAT	CCAAGTTGGT	ATCATGATCG	AGATTCTTGC	AGCGGCTATG	CTTGCAGACC	2340
AATTTGCTAA	AGAAGTTGAC	TTCTTCTCAA	TTGGTACAAA	CGACTTGATC	CAATATACAA	2400
TGGCAGCAGA	CCGTATGAAC	GAACAAGTTT	CATACCTTTA	CCAACCATAC	AACCCATCAA	2460
TCCTACGCTT	GATTAACAAT	GTGATCAAAG	CAGCTCACGC	TGAAGGTAAA	TGGGCTGGTA	2520
TGTGTGGTGA	GATGGCTGGT	GACCAACAAG	CTGTTCCACT	TCTTGTGCGA	ATGGGCTTGG	2580
ATGAGTTCTC	TATGTCAGCA	ACATCTGTAC	TTCGTACACG	CAGCTTGATG	AAGAACTCG	2640
ACACAGCTAA	GATGGAAGAG	TACGCAAACC	GTGCCCTTAC	AGAATGCTCA	ACAATGGAAG	2700
AAGTTCTTGA	ACTTCAAAAA	GAATACGTTA	ATTTTGATTA	ATCGAAAAGT	CCCTGCAACT	2760
CAGTTACAGG	GATTTTTTTG	ATATTTTAAA	AAGAATTTTC	AAGAAAATCT	TTCTTATAGA	2820
AAGTCCAACC	TTGAAAAAGT	AGTGGTCAGA	ACAAAAAATA	CTTAAATGGT	TCATAAAATT	2880
CTTGACAAGT	TGGATATTTA	GGAGTAAACT	ATTAACCAGT	TAAGTAATAG	AGAGGAGTTT	2940
CTGCAATTTA	GAAATGAATT	GCAACTAGAA	ATATCAAATA	GAAAGAGAGT	TTCGATGAAA	3000
ATTAATAAGA	AATACCTTGT	TGGTTCCTGC	GCACTTTGAT	TTTAAGTGTT	TGTTCTTACG	3060
AGTTGGGACT	GTATCAAGCT	AGAACGGTTA	AGGAAAAATA	TCGTGTTTCC	TATATAGATG	3120
GAAACAAGC	GACGCAAAAA	ACGGAGAATT	TGACTCCTGA	TGAGGTAGC	AAGCGTGAAG	3180
GAATCAATGC	TGAGCAAATC	GTCATCAAGA	TAACAGACCA	AGGCTATGTC	ACTTCACATG	3240
GCGACCACTA	TCATTATTAC	AATGGTAAGG	TTCCTTATGA	CGCTATCATC	AGTGAAGAAT	3300
TACTCATGAA	AGATCCAAAC	TATAAGCTAA	AAGATGAGGA	TATTGTTAAT	GAGGTCAAGG	3360
GTGGATATGT	TATCAAGGTA	GATGGAAAAT	ACTATGTTTA	CCTTAAGGAT	GCTGCCACG	3420
CGGATAACGT	CCGTACAAAA	GAGGAAATCA	ATCGACAAAA	ACAAGAGCAT	AGTCAACATC	3480
GTGAAGGTGG	AACTCCAAGA	AACGATGGTG	CTGTTGCCTT	GGCACGTTTC	CAAGGACGCT	3540
ATACTACAGA	TGATGGTTAT	ATCTTTAATG	CTTCTGATAT	CATAGAGGAT	ACTGGTGATG	3600
CTTATATCGT	TCCTCATGGA	GATCATTACC	ATTACATTCC	TAAGAATGAG	TTATCAGCTA	3660
GCGAGTTGGC	TGCTGCAGAA	GCCTTCCTAT	CTGGTCGAGG	AAATCTGTCA	AATTCAAGAA	3720
CCTATCGCCG	ACAAAATAGC	GATAACACTT	CAAGAACAAA	CTGGGTACCT	TCTGTAAGCA	3780
ATCCAGGAAC	TACAAATACT	AACACAAGCA	ACAACAGCAA	CACTAACAGT	CAAGCAAGTC	3840
AAAGTAATGA	CATTGATAGT	CTCTTGAAAC	AGCTCTACAA	ACTGCCTTTG	AGTCAACGAC	3900

730

ATGTAGAATC	TGATGGCCTT	GTCTTTGATC	CAGCACAAAT	CACAAGTCGA	ACAGCTAGAG	3960
GTGTTGCAGT	GCCACACGGA	GATCATTACC	ACTTCATCCC	TTACTCTCAA	ATGTCTGAAT	4020
TGGAAGAACG	AATCGCTCGT	ATTATTCCCC	TTCGTTATCG	TTCAAACCAT	TGGGTACCAG	4080
ATTCAAGGCC	AGAACAACCA	AGTCCACAAC	CGACTCCGGA	ACCTAGTCCA	GGCCCGCAAC	4140
CTGCACCAAA	TCTTAAAAATA	GACTCAAATT	CTTCTTTGGT	TAGTCAGCTG	GTACGAAAAG	4200
TTGGGGAAGG	ATATGTATTC	GAAGAAAAGG	GCATCTCTCG	TTATGTCTTT	GCGAAAGATT	4260
TACCATCTGA	AACTGTAAAA	AATCTTGAAA	GCAAGTTATC	AAAACAAGAG	AGTGTTCAC	4320
ACACTTTAAC	TGCTAAAAAA	GAAAATGTTG	CTCCTCGTGA	CCAAGAATTT	TATGATAAAG	4380
CATATAATCT	GTTAACTGAG	GCTCATAAAG	CCTTGTTTGA	AAATAAGGGT	CGTAATTCTG	4440
ATTTCCAAGC	CTTAGACAAA	TTATTAGAAC	GCTTGAATGA	TGAATCGACT	AATAAAGAAA	4500
AATTGGTAGA	TGATTTATTTG	GCATTCCTAG	CACCAATTAC	CCATCCAGAG	CGACTTGGCA	4560
AACCAAAATC	TCAAATTGAG	TATACTGAAG	ACGAAGTTCG	TATTGCTCAA	TTAGCTGATA	4620
AGTATACAAC	GTCAGATGGT	TACATTTTGTG	ATGAACATGA	TATAATCAGT	GATGAAGGAG	4680
ATGCATATGT	AACGCCTCAT	ATGGGCCATA	GTCACTGGAT	TGGAAAAGAT	AGCCTTTCTG	4740
ATAAGGAAAA	AGTTGCAGCT	CAAGCCTATA	CTAAAGAAAA	AGGTATCCTA	CCTCCATCTC	4800
CAGACGCAGA	TGTTAAAGCA	AATCCAAC TG	GAGATAGTGC	AGCAGCTATT	TACAATCGTG	4860
TGAAAGGGGA	AAAACGAATT	CCACTCGTTC	GACTTCCATA	TATGGTTGAG	CATACAGTTG	4920
AGGTAAAAAA	CGGTAATTTG	ATTATTCCTC	ATAAGGATCA	TTACCATAAT	ATTAAATTTG	4980
CTTGTTTGA	TGATCACACA	TACAAAGCTC	CAAAATGGCTA	TACCTTGGA	GATTTGTTTG	5040
CGACGATTAA	GTA CTACGTA	GAACACCCTG	ACGAACGTCC	ACATTCTAAT	GATGGATGGG	5100
GCAATGCCAG	TGAGCATGTG	TTAGGCAAGA	AAGACCACAG	TGAAGATCCA	AATAAGAACT	5160
TCAAAGCGGA	TGAAGAGCCA	G TAGAGGAAA	CACCTGCTGA	GCCAGAAGTC	CCTCAAGTAG	5220
AGACTGAAAA	AGTAGAAGCC	CAACTCAAAG	AAGCAGAAGT	TTTGCTTGCG	AAAGTAACGG	5280
ATTCTAGTCT	GAAAGCCAAT	GCAACAGAAA	CTCTAGCTGG	TTTACGAAAT	AATTTGACTC	5340
TTCAAATTAT	GGATAACAAT	AGTATCATGG	CAGAAGCAGA	AAAATTACTT	GCGTTGTTAA	5400
AAGGAAGTAA	TCCTTCATCT	GTAAGTAAGG	AAAAAATAAA	CTAATGAAAA	ATGAAAGTCT	5460
CGATAAAGAG	GCTTTCATTT	TTATTATGTA	TATATGTAAA	ATTCTTGACA	AGCAATATTA	5520
AAAAGAGTAA	ACTATTAACT	AGTTAATTAA	CCGGTTTATT	ACTTTATAGT	GAATCAAATA	5580
TACTTAAGAA	AAGAGGAAAG	AATGAAAATT	AATAAAAAAT	ATCTAGCAGG	TTCAGTGGCA	5640
GTCTTGCCCC	TAAGTGTTTG	TTCTTATGAA	CTTGGTCGTC	ACCAAGCTGG	TCAGGTTAAG	5700

731

AAAGAGTCTA ATCGAGTTkC TTATATAGAT GGTGATCAGG CTGGTCAAAA GGCAGAAAAC	5760
TTGACACCAG ATGAAGTCAG TAAGAGGGAG GGGATCAACG CCGAACAAAT CGTCATCAAG	5820
ATTACGGATC AAGGTTATGT GACCTCTCAT GGAGACCATT ATCATTAATA TAATGGCAAG	5880
GTCCCTTATG ATGCCATCAT CAGTGAAGAG CTCCTCATGA AAGATCCGAA TTATCAGTTG	5940
AAGGATTCAG ACATTGTCAA TGAAATCAAG GGTGGTTATG TTATCAAGGT AGATGGAAAA	6000
TACTATGTTT ACCTTAAGGA TGCAGCTCAT GCGGATAATA TTCGGACAAA AGAAGAGATT	6060
AAACGTCAGA AGCAGGAACA CAGTCATAAT CACGGGGGTG GTTCTAACGA TCAAGCAGTA	6120
GTTGCAGCCA GAGCCCAAGG ACGCTATACA ACGGATGATG GTTATATCTT CAATGCATCT	6180
GATATCATTG AGGACACGGG TGATGCTTAT ATCGTTCCTC ACGGCGACCA TTACCATTAC	6240
ATTCCTAAGA ATGAGTTATC AGCTAGCGAG TTAGCTGCTG CAGAAGCCTA TTGGAATGGG	6300
AAGCAGGGAT CTCGTCCTTC TTCAAGTTCT AGTTATAATG CAAATCCAGC TCAACCAAGA	6360
TTGTGAGAGA ACCACAATCT GACTGTCACT CCAACTTATC ATCAAAATCA AGGGGAAAAC	6420
ATTTCAAGCC TTTTACGTGA ATTGTATGCT AAACCTTAT CAGAACGCCA TGTGGAATCT	6480
GATGGCCTTA TTTTCGACCC AGCGCAAATC ACAAGTCGAA CCGCCAGAGG TGTAGCTGTC	6540
CCTCATGGTA ACCATTACCA CTTTATCCCT TATGAACAAA TGCTGAATT GGAAAAACGA	6600
ATTGCTCGTA TTATTCCTTC TCCTTATCGT TCAAACCAT GGGTACCAGA TTCAAGACCA	6660
GAACAACCAA GTCCACAATC GACTCCGGAA CCTAGTCCAA GTCCGCAACC TGCACCAAAT	6720
CCTCAACCAG CTCCAAGCAA TCCAATTGAT GAGAAATTGG TCAAAGAAGC TGTTCGAAAA	6780
GTAGGCGATG GTTATGTCTT TGAGGAGAAT GGAGTTTCTC GTTATATCCC AGCCAAGGAT	6840
CTTTCAGCAG AAACAGCAGC AGGCATTGAT AGCAAACCTGG CCAAGCAGGA AAGTTTATCT	6900
CATAAGCTAG GAGCTAAGAA AACTGACCTC CCATCTAGTG ATCGAGAATT TTACAATAAG	6960
GCTTATGACT TACTAGCAAG AATTCACCAA GATTTACTTG ATAATAAAGG TCGACAAGTT	7020
GATTTTGAGG CTTTGGATAA CCTGTTGGAA CGACTCAAGG ATGTCyCAAG TGATAAAGTC	7080
AAGTTAGTGG ATGATATCTT TGCTTCTTA GCTCCGATTC GTCATCCAGA ACGTTTAGGA	7140
AAACCAAATG CGCAAATTAC CTACACTGAT GATGAGATTC AAGTAGCCAA GTTGGCAGGC	7200
AAGTACACAA CAGAAGACGG TTATATCTTT GATCCTCGTG ATATAACCAG TGATGAGGGG	7260
GATGCCTATG TAACTCCACA TATGACCCAT AGCCACTGGA TTAATAAAGA TAGTTTGTCT	7320
GAAGCTGAGA GAGCGGCAGC CCAGGCTTAT GCTAAAGAGA AAGGTTTGAC CCCTCCTTCG	7380
ACAGACCATC AGGATTCAGG AAATACTGAG GCAAAAGGAG CAGAAGCTAT CTACAACCGC	7440

732

GTGAAAGCAG CTAAGAAGGT GCCACTTGAT CGTATGCCCTT ACAATCTTCA ATATACTGTA	7500
GAAGTCAAAA ACGGTAGTTT AATCATACCT CATTATGACC ATTACCATAA CATCAAATTT	7560
GAGTGGTTTG ACGAAGGCCT TTATGAGGCA CCTAAGGGGT ATACTCTTGA GGATCTTTTG	7620
GCGACTGTCA AGTACTATGT CGAACATCCA AACGAACGTC CGCATTCAGA TAATGGTTTT	7680
GGTAACGCTA GCGACCATGT TCGTAAAAAT AAGGTAGACC AAGACAGTAA ACCTGATGAA	7740
GATAAGGAAC ATGATGAAGT AAGTGAGCCA ACTCACCCCTG AATCTGATGA AAAAGAGAAT	7800
CACGCTGGTT TAAATCCTTC AGCAGATAAT CTTTATAAAC CAAGCACTGA TACGGAAGAG	7860
ACAGAGGAAG AAGCTGAAGA TACCACAGAT GAGGCTGAAA TTCCTCAAGT AGAGAATTCT	7920
GTTATTAACG CTAAGATAGC AGATGCGGAG GCCTTGCTAG AAAAAGTAAC AGATCCTAGT	7980
ATTAGACAAA ATGCTATGGA GACATTGACT GGTCTAAAAA GTAGTCTTCT TCTCGGAACG	8040
AAAGATAATA AACTATTTTC AGCAGAAGTA GATAGTCTCT TGGCTTTGTT AAAAGAAAGT	8100
CAACCGGCTC CTATACAGTA GTAAATGAA TGGAGCATAT TTTATGGAGA AGTAACCTTT	8160
CGTGTTACTT CTCTTTTTTA GAAAAACGTA ACAGA	8195

(2) INFORMATION FOR SEQ ID NO: 95:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2004 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

TTTACTAAAA GGAAAAAAGA ACTGATTTCT CAGTCCTTCA TTAATCTTAT TCCACACTAA	60
ATAGGTATGG GTAAACAGGT TGTGACCTT GGTGAATCTC GACTTCAACG TCTTCGAATT	120
CTTCTACGAT TTCTTGAGCG ATTTCAATTG CAAGTTCTTC GCTTCCGTCT TCACCTACAT	180
AGAAGGTTAC GATTTCACTG TCTTCATCCA ACATATGTTT CAAGGTTTCA GTCAATGITT	240
GGTGCATATC AGGGTTTGAC ACAAGAATTT TTCCATCCAC CATACCTAAA TTATCGTTTT	300
CATGGATTTT TAAGCCATCG ATCGTTGTAT CACGCACGGC TGTGTGACG CTTCGGCTAA	360
CGACATCGCT AAGAGCAGCT GTCATACGCT CTTGGTTTTT TTCAATGGAC TTGCTTGGAT	420
CAAAGGCAAG AAGACTTGTC ATACCTTGAG GAAGAGTGCG AGCCTCTACC ACTACCGCTG	480
GTTGCTCCAA AACTTCTGCC GCAGATTGAG CTGCCATGAA GATGTTCTTG TTGTTTGGCA	540
AGAAGATGAT GTTACGGGCA TTAACCTGTT CAACAGCCTT GATAAAGTCT TCTGTTGAAG	600
GGTTCATGGT TTGACCGCCT TCGATAACAT AATCCACGCC TTGAGAACAG AAGATATCTG	660

733

CTAGACCTTT ACCAGCCACC ACAGCAATCA AAGCATACTC TTTTCTTCA GCCGACTTGA	720
TAACTTGAGT AGCTTCTTTC TCAACCTGTG CTTCTGTGTG GTTACGCATA TTGTCAACTT	780
TTACCTTGAC CAAGCTACCA TATTGAGAC CTTCTTGCAT AACCAAGTCCT GGATCTTCTG	840
TATGAACATG GACTTTGACA ATTCATCAT CGTTAACAAC AAGGAGAGAA TCTCCAAGCT	900
CATCCAAGTA GTTACGGAAT TCATCGTAGT CAAAATCTTT AGCATAGGTT GGACCTTGCT	960
TAAGAGCTAC CATGATTTC A GTACAGTAAC CAAACGTGAT GTCCTCAGTC GCTACGTGAC	1020
CAGCTACAGA CTTATGATGC TCTACATTGA TCATCTCACT CATGTTGGCA GGAGTCGCTA	1080
CAAAGTCCTC AGATGCAATA TATTCGCCAG TAAGGGCTGA AAGGAAACCT TCGTAGATGA	1140
AGACCAATCC TTGACCACCT GAGTCCACAA CGCCAACCTC TTTCAATACT GGAAGCATGT	1200
CTGGTGTTTT AGCTAGAGCT GTTTTAGCAC CTTCCAAGGC TGC GCGCATG ACTTCAACAG	1260
CGTCATCTGT TTGCTCAGCT TTTTCTTAG CACCGATAGC AGCTCCACGA GAAACTGTTA	1320
AAATCGTTCC TTCAACAGGT TTCATCACTG CTTTATAGGC AACTTCCACA CCTGATTGGA	1380
AGGCCAGAGC CAAGTCTTGA CTTGTAACT CGTCTTTATC CTTGATAGCT TGGGAAAATC	1440
CACGGAAG CTGAGACGTA ATCACTCCTG AGTTCCACG CGCACCCATC AAAAGCCCTT	1500
TGGCAAGAAT GCTCGCTACT TCTCCAAGT TAGAAGCTGG CTTGTCTGCA ACTTCTTTAG	1560
CACCATTTTC AATGGTCATT CCCATATTG TCCAGTATC TCCATCTGGA ACTGGAAAGA	1620
CGTTTAATGA ATTGACATAT TCAGCTTGCT TATTCAAGCG AGTTGATGCA GCCTGCACCA	1680
TTTCTTGAAA TAAGCTAGTA GTAATTTTG ACACGGTTAT TCTCCTACAA CTTTGATATT	1740
TTGAATGTAG ACATTTACAG TCTGAGCAGT AATTCCAAGC TGGTTTCCA AGCTAAAGGC	1800
AACACGCTCT TGAATGTTTT TTGACACTTC ACTAATCTTT GTTCCGTAGC TTAACACGGT	1860
ATATACATCA ACTGCAATAC TGCCATCTTC GGCTGCCTTT ACGACGACAC CTTTAGAATA	1920
ATTTTCCTTA CCTAGCAGGG CTTGGAAATT ATCTTTGAGG GCATTTTAC TAGCCATACC	1980
GACCACACCA GAAATCTCAG TTGC	2004

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11915 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

734

CCGGGTTGGG CTGTTGCCCC ATTAAAGCGG CACCACAGCT GGGTTCAGAA CGTCGTGAGA	60
CAGTTCGGTC CCTATCCGTC GCGGGCGTAG GAAATTTGAG AGGATCTGCT CCTAGTACGA	120
GAGGACCAGA GTGGACTTAC CGCTGGTGTA CCAGTTGTCT TGCCAAAGGC ATCGCTGGGT	180
AGCTATGTAG GGAAGGGATA AACGCTGAAA GCATCTAAGT GTGAAACCCA CCTCAAGATG	240
AGATTTCCCA TGATTATATA TCAGTAAGAG CCCTGAGAGA TGATCAGGTA GATAGGTTAG	300
AAGTGGAAGT GTGGCGACAC ATGTAGCGGA CTAATACTAA TAGCTCGAGG ACTTATCCAA	360
AGTAACTGAG AATATGAAAG CGAACGGTTT TCTTAAATTG AATAGATATT CAATTTTGAG	420
TAGGTATTAC TCAGAGTTAA GTGACGATAG CCTAGGAGAT ACACCTGTAC CCATGCCGAA	480
CACAGAAGTT AAGCCCTAGA ACGCCGGAAG TAGTTGGGGG TTGCCCCCTG TGAGATAGGG	540
AAGTCGCTTA GCTCTAGGGA GTTTAGCTCA GCTGGGAGAG CATCTGCCTT ACAAGCAGAG	600
GGTCAGCGGT TCGATCCCGT TAACTCCCAT TTTAGCGGGT GTAGTTTAGT GGTAAACTA	660
CAGCCTTCCA AGCTGTTGTC GCGAGTTCGA TTCTCGTCAC CCGCTTTGAA CTTTGTCTCT	720
TGTACCAAGT TTTTGACTTG GCGCGTAGC TCAGGTGGTT AGAGCGCACG CCTGATAAGC	780
GTGAGGTCGG TGTTTCGAGT CCACTCGTGC CCATAGTGTT TAGTCCATTA CTAGGGGATT	840
GGAATATTAT CTGTTCACTA AGAGGACACG GGCTTGTTCC CGTATAAACT ATTTTGAGG	900
ATTACCCAAG TCCGGCTGAA GGAACGGTC TTGAAAACCG TCAGGCGTGT AAAAGCGTGC	960
GTGGGTTCGA ATCCACATC CTCCTTTTAT ATTAACGCGG GATGGAGCAG CTCGGTAGCT	1020
CGTCGGGCTC ATAACCCGAA GGTCGTAGGT TCAAATCCTG CTCCCGCAAT AAGGCTCGGT	1080
AGCTCAGTTG GTAGAGCAAT GGATTGAAGC TCCATGTGTC GGCGGTTCGA TTCCGTCTCG	1140
CGCCATTTAT ATATTTTGGA AGGGTAGCGA AGAGGCTAAA CGCGGCGGAC TGTAAATCCG	1200
CTCCTTCGGG TTCGGGGGTT CGAATCCCTC CCCTTCCATT TTACGGGCAT AGTTTAAAGG	1260
TAGAACTAAG GTCTCCAAA CCTTCAGTGT GGGTTCAATT CCTACTGCCC GTGTTAATAG	1320
AATTATGGCG GGTGTGGTGA AGTGGTTAAC ACACCAGATT GTGGCTCTGG CATGCGTGGG	1380
TTCGATCCCC ATCACTCGCC TATTTTATAT TGGGGTATAG CCAAGCGGTA AGGCAAGGGA	1440
CTTTGACTCC CTCATGCGTT GGTTCGAATC CAGCTACCCC AGTTACTATT TGCCGGCGTG	1500
GCGGAATTGG CAGACGCGCT GGA CTCAAAA TCCAGTGTCC GCAAGGACGT GCCGGTTCGA	1560
CCCCGGCCGC CGGTATAGTA TAGTGTAGG AACGTTGTTA TTCTTCGTTC CTTTTTTATA	1620
TTATTTTTGG TATAATTATA GTTATTCAAA TTTTATTTAG ATTAAGAAAAG TGTAGGGGAG	1680
TATGTCTTGT TCTATCGATT TATTAACA TCGGTATTTG AAAAATATTA AAGAAAATCC	1740
TGAATTGTTT GTCGGAATTG AGTTGGAGTA TCCTGTGCA AGTTTAGAAG GGGATGCTAC	1800

735

AGATGTTGAA GTTATGAAGG ATCTATTTCA TTATTTAGTT TCTACTTTGG ATCTCACCGT	1860
AGCAAAGGTA GATGATTTTG GCAATCTGAT CCAGTTAGTA GATCCGATAA GTCAGGATGC	1920
TATTTTATTT GAAGTTTCCT ATACAACGAT TGAGTTTGCA TTTGGTAAGG CTGAAACGAT	1980
TCAAGAGGTC GAAAATCGTT TCAATAATTA TATGAATGTA ATTCAGAGAA AGTTAGCTGA	2040
ATCAAATCAT GCTATTGTTG GCTGTGGTAT CCATCCCAAC TGGGATAAAA ATGAGAATTG	2100
TCCAGTGGCT TATCCACGCT ATCAGATGTT GATGGATTAT TTGAATTTGA GTAGAAATAT	2160
TATTAAATCA GATTTACATC ATTTCCCTGA ATATGGTACT TTTATCTGTG GGAGCCAGGT	2220
TCAGCTGGAT ATTTCAAAAA CCAACTACTT ACGGGTGATT AATGCTTTTA CTCAAATTGA	2280
AGCGGCTAAG GCTTATTTAT TTGCAAATC TGAATTTTCG GGTGCGGATT GGGATACGAA	2340
AATTTCAAGG GATATTTTCT GGAAGAATC TATGCATGGT ATCTATCCAG AGAATGTTGG	2400
GGTCAATGCT AGACTCCTTA ATGATGAAAC TGATTTTTTT GACTATCTAA ATCATTTCTGC	2460
GATTTTACT GCGGAACGTG ATGGGCAGAC CTATTATTTT TATCCTATTC AGGCTGGGGA	2520
CTATTTGGCT ACGTCCGAAA TCCAAGCATT TGCTCTGAAT GGGGATGAGG TTATTATTTA	2580
CCCCAAGAG AAGGATTTTG AAACATCATG TAGTTACCAG TACCAAGATT TAACGACTCG	2640
AGGAACAGTT GAGTTTCGTA GTGTGTGTAC ACAGCCACTT GATAGGACTT TTGCTTCTGC	2700
AGCTTTTCAC TTGGGATTAT TGGTTAATTT AGACAAGTTA GAAGCTTACT TAGAAACAGC	2760
ACCTTTCTTT AAAGTATTTG GTTATGATTA CAAGTCTTTA AGGAGACAAT TTTCTAAGAA	2820
AAATCTTACA GATGAGGAAG AAACATCATG TATTTGAATTT TCCAAAGACT TACTCCTACT	2880
AGCTGAGGAG GGAAGTAGTG TGAGAAATAA GGAAGAAATG ACCTATTTAC AGCCTTTGAG	2940
AGAAGAATTG AGCCTATAAT TTCTCTTATA AAGGAGAAAT TTTCTGAAAA ATCATGATAT	3000
AATGGACGAG ACTATAGATA AAGGATAGAG AGTAATGACA TTAGTTTATC AATCAACGCG	3060
TGATGCCAAC AATACAGTAA CTGCCAGCCA AGCAATTTTG CAAGGTTTGG CGACGGACGG	3120
CGGTTTGT TT ACACCGGATA CTTATCCAAA GGTAGATTTG AACTTTGACA AATTGAAAGA	3180
TGCTTCTTAC CAGGAAGTTG CTAAGCTAGT TTTGTCAGCA TTTTLAGATG ACTTTACAGT	3240
TGAGGAGTTG GACTACTGTA TCAACAATGC CTACGATAGC AAATTTGATA CTCCAGCTAT	3300
TGCACCATTA GTGAAATTAG ATGGGCAATA CAATTTGGAA CTTTCCATG GTTCAACGAT	3360
TGCCTTTAAG GATATGGCCT TGTCTATTTT GCCATACTTT ATGACGACTG CTGCTAAGAA	3420
ACATGGTTTG GAGAACAAGA TTGTTATCTT GACACGACA TCTGGTGACA CGGGGAAAGC	3480
TGCTATGGCG GGGTTGCGA ATGTGCCTGG TACTGAGATT ATCGTCTTTT ATCCAAAGGA	3540

736

TGGTGTCTCAGC	AAGATTCAAG	AGTTACAAAT	GACCACTCAG	ACTGGCGACA	ATACTCATGT	3600
TATTGCTATT	GATGGTAACT	TTGACGATGC	GCAAACAAAT	GTGAAGCACA	TGTTTAACGA	3660
CGTGGCTCTT	CGTGAAAAAT	TGACTACCAA	CAAGTTGCAA	TTTTCATCAG	CTAACTCTAT	3720
GAACATTGGT	CGTCTGGTGC	CACAAATTGT	TTATTATGTT	TATGCTTACG	CTCAATTGGT	3780
TAAGACTGGT	GAAATTGTAG	CTGGTGAAAA	GGTTAACTTC	ACAGTACCAA	CAGGAACTT	3840
TGGAAATATC	TTGGCTGCCT	TTTATGCCAA	ACAAATTGGT	TTGCCAGTTG	GTAAATTAAT	3900
CTGTGCTTCA	AATGACAACA	ATGTTTTGAC	AGACTTCTTT	AAAACACGTG	TCTATGACAA	3960
AAAACGTGAG	TTTAAGGTAA	CAACCAGCCC	ATCTATGGAT	ATCTTGGTAT	CTTCAAACCT	4020
GGAGCGCTTG	ATTTTCCATC	TTTTTGGAAA	TAATGCTGAA	AAGACAACCTG	AACTTATGAA	4080
TGCCTTGAAC	ACGCAAGGAC	AATATAAGTT	GACAGACTTT	GATGCAGAGA	TTTTGGACCT	4140
CTTTGCAGCT	GAATATGCGA	CTGAGGAAGA	AACGGCAGCA	GAGATCAAGC	GTGTTTGTGA	4200
GTTAGATTCT	TATATCGAGG	ACCCTCATAC	AGCTGTTGCT	TCAGCAGTTT	ATAAAAAATA	4260
CCAATCGGCC	ACTGGAGATG	TAACTAAGAC	AGTGATTGCT	TCAACAGCTA	GTCCATACAA	4320
GTTCCAGTA	GTTGCAGTAG	AAGCTGTAAC	TGGAAGCA	GGTTTAACAG	ACTTTGAAGC	4380
CTTGGCTCAA	TTACATGAAA	TCTCAGGCGT	TGCAGTGCCA	CCAGCAGTTG	ATGGGCTTGA	4440
AATAGCTCCA	ATTCGTCACA	AGACAACAGT	GGCAGCTGCT	GACATGCAAG	CAGCGGTTGA	4500
GGCTTATTTA	GGACTTTAAG	ACAGAGGGAG	CAAACCTCGGT	TGGGAAACCA	ACTGAGTTTC	4560
TTTTCATCAG	GAGGAGAGAT	TGTTTAAGAA	AAATAAAGAC	ATTCTTAATA	TTGCATTGCC	4620
AGCTATGGGT	GAAAACTTTT	TGCAGATGCT	AATGGGAATG	GTGGACAGTT	ATTTGGTTGC	4680
TCATTTAGGA	TTGATAGCTA	TTTCAGGGGT	TTCAGTAGCT	GGTAATATTA	TCACCATTTA	4740
TCAGGCGATT	TTCATCGCTC	TGGGAGCTGC	TATTTCCAGT	GTTATTTCAA	AAAGCATAGG	4800
GCAGAAAGAC	CAGTCGAAGT	TGGCCTATCA	TGTGACTGAG	GCGTTGAAGA	TTACCTTACT	4860
ATTAAGTTTC	CTTTTAGGAT	TTTTGTCCAT	CTTCGCTGGG	AAAGAGATGA	TAGGACTTTT	4920
GGGGACGGAG	AGGGATGTAG	CTGAGAGTGG	TGGACTGTAT	CTATCTTTGG	TAGGCGGATC	4980
GATTGTTCTC	TTAGGTTTAA	TGACTAGTCT	AGGAGCCTTG	ATTCGTGCAA	CGCATAATCC	5040
ACGTCTGCCT	CTCTATGTTA	GTTTTTTATC	CAATGCCTTG	AATATTCTTT	TTTCAAGTCT	5100
AGCTATTTTT	GTTCTGGATA	TGGGGATAGC	TGGTGTGCT	TGGGGGACAA	TTGTGTCTCG	5160
TTTGGTTGGT	CTTGTGATTT	TGTGGTCACA	ATTAAAACCTG	CCTTATGGGA	AGCCAACTTT	5220
TGGTTTAGAT	AAGGAACTGT	TGACCTTGGC	TTTACCAGCA	GCTGGAGAGC	GACTTATGAT	5280
GAGGGCTGGA	GATGTAGTGA	TCATTGCCTT	GGTCGTTTCT	TTTGGGACGG	AGGCAGTTGC	5340

737

TGGGAATGCA	ATCGGAGAAG	TCTTGACCCA	GTTTAACTAT	ATGCCTGCCT	TTGGCGTCGC	5400
TACGGCAACG	GTCATGCTGT	TGGCCCGAGC	AGTTGGAGAG	GATGATTGGA	AAAGAGTTGC	5460
TAGTTTGAGT	AAACAAACCT	TTTGGCTTTC	TCTGTTCCCTC	ATGTTGCCCC	TGTCCTTTAG	5520
TATATATGTC	TTGGGTGTAC	CATTAACCTCA	TCTCTATACG	ACTGATTCTC	TAGCGGTGGA	5580
GGCTAGTGTT	CTAGTGACAC	TGTTTTCACT	ACTTGGGACC	CCTATGACGA	CAGGAACAGT	5640
CATCTATACG	GCAGTCTGGC	AGGGATTAGG	AAATGCACGC	CTCCCTTTTT	ATGCGACAAG	5700
TATAGGAATG	TGGTGTATCC	GCATTGGGAC	AGGATATCTG	ATGGGGATTG	TGCTTGGGTTG	5760
GGGCTTGCCCT	GGTATTTGGG	CAGGGTCTCT	CTTGGATAAT	GGTTTTCGCT	GGTTATTTCT	5820
ACGCTATCGT	TACCAGCGCT	ATATGAGCTT	GAAAGGATAG	GAAATGCAAA	AAACAGCTTT	5880
TATTTGGGAT	TTAGACGGGA	CTTTATTGGA	CTCTTACGAA	GCGATTTTAT	CAGGGATTGA	5940
GGAGACTTTT	GCTCAGTTTT	CTATTCCTTA	TGATAAGGAG	AAGGTGAGAG	AGTTTATCTT	6000
CAAGTATTCG	GTGCAAGATT	TGCTTGTGCG	GGTGGCAGAA	GATAGAAATC	TGGATGTTGA	6060
GGTGCTAAAT	CAGGTGCGTG	CCCAGAGTCT	GGCTGAGAAG	AATGCTCAGG	TAGTTTGTAT	6120
GCCAGGTGCG	CGTGAGGTGC	TAGCTTGGGC	AGACGAATCA	GGAATTCAGC	AGTTTATATA	6180
TACTCATAAG	GGGAACAACG	CTTTTACCAT	TCTCAAGGAC	TTGGGGGTGG	AATCCTATTT	6240
TACAGAGATT	TTAACCAGTC	AGAGTGGCTT	TGTGCGGAAG	CCAAGTCCAG	AAGCGGCTAC	6300
CTATCTGCTA	GATAAGTATC	AGTTGAATTC	TGATAATACT	TATTATATAG	GGGATCGGAC	6360
TCTGGATGTG	GAATTTGCCC	AGAATAGTGG	GATTCAAAGC	ATCAACTTTT	TAGAGTCTAC	6420
TTATGAAGGG	AATCACAGGA	TTCAAGCGTT	AGCAGATATT	TCCCGTATTT	TTGAGACTAA	6480
GTGATAAAAA	GATTGTGTCA	GTTTTGTGAC	AGAGACCTAA	CAAACTATTT	CAAGTAACCT	6540
AGTTTGTTAC	AAGGAATAGA	CAGTTCTGTT	AAATAGGCCC	GAGAGGGCTT	TTTTTCTACA	6600
TTTTTTGTGT	TATGATAGAC	AGGTACTCAT	TTGAAAGGAA	TTTGAAAGAA	TGAAGAAAAG	6660
AATGTTATTA	GCGTCAACAG	TAGCCTTGTC	ATTTGCCCCA	GTATTGGCAA	CTCAAGCAGA	6720
AGAAGTTCTT	TGGA CTGCAC	GTAGTGTTGA	GCAAATCCAA	AACGATTTGA	CTAAAACGGA	6780
CAACAAAACA	AGTTATACCG	TACAGTATGG	TGATACTTTG	AGCACCATTG	CAGAAGCCTT	6840
GGGTGTAGAT	GTCACAGTGC	TTGCGAATCT	GAACAAAATC	ACTAATATGG	ACTTGATTTT	6900
CCCAGAAACT	GTTTGTGACAA	CGACTGTCAA	TGAAGCAGAA	GAAGTAACAG	AAGTTGAAAT	6960
CCAAACACCT	CAAGCAGACT	CTAGTGAAGA	AGTGACAACCT	GCGACAGCAG	ATTTGACCAC	7020
TAATCAAGTG	ACCGTTGATG	ATCAAACGTG	TCAGGTGCA	GACCTTTCTC	AACCAATTGC	7080

738

AGAAGTTACA AAGACAGTGA TTGCTTC'TGA AGAAGTGGCA CCATCTACGG GCACTTCTGT	7140
CCCAGAGGAG CAAACGACCG AAACAAC'TCG CCCAGTTGAA GAAGCAACTC CTCAGGAAAC	7200
GACTCCAGCT GAGAAGCAGG AAACACAAGC AAGCCCTCAA GCTGCATCAG CAGTGGAAGT	7260
AACTACAACA AGTTCAGAAG CAAAAGAAGT AGCATCATCA AATGGAGCTA CAGCAGCAGT	7320
TTCTACTTAT CAACCAGAAG AGACGAAAAT AATTTCAACA ACTTACGAGG CTCCAGCTGC	7380
GCCCCATTAT GCTGGACTTG CAGTAGCAA ATCTGAAAAT GCAGGTCTTC AACCACAAAC	7440
AGCTGCCTTT AAAGAAGAAA TTGCTAACTT GTTTGGCATT ACATCCTTTA GTGGTTATCG	7500
TCCAGGAGAC AGTGGAGATC ACGGAAAAGG TTTGGCTATC GACTTTATGG TACCAGAACG	7560
TTCAGAATTA GGGGATAAGA TTGCGGAATA TGCTATTCAA AATATGGCCA GCCGTGGCAT	7620
TAGTTACATC ATCTGGAAC AACGTTTCTA TGCTCCATTC GATAGCAAAT ATGGGCCAGC	7680
TAACACTTGG AACCCAA'TGC CAGACCGTGG TAGTGTGACA GAAAATCACT ATGATCACGT	7740
TCACGTTTCA ATGAATGGAT AAACCCGACT TGATAACATC ATTTTGACGA ATGAGATCTA	7800
GCTTTCGTGA TGGAAAGCGA TTCTCGTTCG TTTTTCCTTT GTCATACTCT TCGAAAATCT	7860
CTTCAAACCA CGTCAGTTTT ATCTGAAACT TCAAAGCTGT GCTTTGAGCA ACCTGCGACT	7920
AGCTTCCTAG TTTGCTTTTT GATTTTCATT GAGTATCAAT TTGAATGGAA AATGGAAAGT	7980
TATCATCTTG TAATGAGTTA AGCAACATTC TTGCAATCTA TTTTACTTTA TATCACAATT	8040
AATTAGTCAA ATATTGATAA ATCAATAAAA AGAGAGGGGA AGAAATGCTA GAGATTCAAG	8100
ATTTACTGTA TCAACTCCGC TTGTCTGAGC AAGCGAGTAC GCAATTGTTT GAAAAAAGGC	8160
TTGGGATTAG TTTGACACGG TATCAGATTT TACTGTTTTT GCTGGAGCAT TCTCCTTGTA	8220
ACCAAATGGC GGTT'CAGGAG CGTTTGAAAA TTGATCAGGC TGCTTTGACA CGGCATTTCA	8280
AAATTTTGGA AACGGAAGGT TTGGTGGAGC GTCATCGTAA TCCTGAAAAT CAGCGGGAAG	8340
TGTTGGTAGA GGCTGCGAAG TATGCCAAGG AGCAGTTAGT GGTGAATCCC CCTCTGCAAC	8400
ATATCAGGGT TAAGGAAGAG ATAGAAAGTA TCTTAACAGA GTTTGAGAGA ACAGAACTCA	8460
GCCGTTTATT AAATAAATTG GTTTTGGGTA TTGAAAATAT AGAAATTTAA GGAGAAATAG	8520
ATGTCAATTA TTTTAACAAC GATCGTTGCT TTGGAGCATT TTTACATTTT TTATTTGGAA	8580
AGTATTGCCA CGCAATCAGA TGCGACTAGT CGTGTATTTA ATATGGAAAA GGAAGAATTG	8640
GCTCATCCGT CAGTAAGTTC ATTGTTCAAA AATCAAGGAA TTTATAAGGC TCTGCTAGGA	8700
GTCTTTCTCT TGTATGTCAT TTATTTCTCA CAGAATTTAG AAATGTGAC TATTTTGTGTC	8760
TTATTTGTGA TTGGTGTGTC GACTTACGGC TCTTTAACAG CGGATAAAAA AATTATTTTG	8820
AAACAAGGTG GATCAGCTAT TTTGGCCTTG ATTAGTATTT TACTCTTTAA ATACACTTGA	8880

AGGTCGATTC TAATCTCGCT AATCCTTTTT AATCCAGAAT AAGGGAAATA TGTTATACTT	8940
GTTTTTAAGA AAAAAGTCTC ATTGAATTGG TTTTGAGGAG TTAGAAATGA AAGTATTAGT	9000
GACAGGTTTT GAGCCCTTTG GAGGGGAAAA GGGCAATCCA GCTTTGGAGG CCATTAAAGG	9060
TTTACCAGCT GAAATCCATG GTGCTGAGGT CCGTTGGCTA GAGGTGCCGA CAGTTTTTCA	9120
CAAATCTGCT CAAGTATTGG AAGAAGAGAT GAATCGTTAT CAACCTGACT TTGTCCTTTG	9180
TATTTGGCAA GCTGGTGGAA GAACTAGTTT GACACCTGAA CGAGTGACCA TTAATCAAGA	9240
CGATGCATGC ATTTCTGATA ACGAAGATAA TCAACCGATT GACCGTCCCA TTCGCCCAGA	9300
TGGTGCTTCG GCCTACTTTA GTAGTTTGCC GATTAAAGCG ATGGTTCAAG CTATAAAAAA	9360
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GTATCAGGCT CTCTATTTGG TAGAAAAGAA ATCTCCATAT GTTAAGGCAG GTTTTATGCA	9480
TATTCCTTAT ATGATGGAAC AGGTGGTGAA CAGACCGACT ACTCCAGCTA TGAGTTTAGT	9540
GGATATTTCG CGAGGGATAG AAGCAGCAAT CGGCGCTATA ATAGAACATG GAGATCAGGA	9600
ACTCAAGTTG GTAGGCGGAG AAACCTATTG ATAGAAAAAA GCTTGAGGGG AAAAACCTTC	9660
AAGCTTTTGG ACGTTTTCGG GCCAATACTG CTCGGTAAAA CATAATTTTA GTGCATTGGA	9720
TATAAGGTAG GAGTGAAAAA CTAGCAATGC CAAAGGTAAT CCAATTGAGG AAGTACCAAG	9780
GAAGAAGCTG TAAATCTAGG ACAAAGTGCT GGAACCTGTA GCCCTTCATA AAGGAACGGC	9840
TAGTTTTTAG GATTCGTCTT GGTGGGACCT GTCCTAGGTC TAGACTATAA CAGAGAAGAA	9900
ATTCCACCTG TGAATAGGCA TAATACTGTG GAATATAGAG GATATTTTCT ACAATGATCA	9960
AGATGAGACT TGCAAGAAAG TAGAGTCCAA AGACCATGAG GAAACGCTCG GTTCAACTG	10020
ATGAGAGATC TAGATTTGGA AACTCAGGAT GTAGGGTGAC GAATTTTTTG GCTAAAAAGC	10080
TACTATAAAA GAGGAGGTAA ATCCCAAGTA AATTAGGGAT ACTCCATAAA AAGAGATAGA	10140
AACGTTTGAG AAGTAGGGTC AAAAAGGTTT GAGAAAAGCG CTCCTCATCA AAGAGAGCTA	10200
GGCTGTTTTT TACAGATGGC TCCGTTTTAG AATCTTTCAT GAGTGTCAGT GTTGCATAGA	10260
CGGAAGTGGT CAAAAGAATA GTCCCGATAA AGGAGACTAG TAGAGGAAAG AGGTAGGTTT	10320
GAAGTATTTG GCCAAGTATG CTGAAAAATG GCTGTTCTAA AACAGTCCCG TGGATCCGAG	10380
ATAAGGGATT AAGAAAACCA GATAAGATGA CCAGCATACT GGGAAAGGATA TAGAGGAGAA	10440
AGAGACGGGG GGTGTCAGCC TGAAAAATGT TTAGCTCCTG ACGAATTGTT TTTAAATCAA	10500
TTTTTGATA GTTCATTCTC TTATTATACC ATAGTTCTTA TACATAGTTC GTGACAGTTC	10560
CTACTTTTTT TGATAAAATC ATACAGTGTG TCCTGGGCA CACTGTATGA ACTGGGACTG	10620

740

TCTTTCCCAG	CTTCGGAGGT	AAAAAATGTC	AGATTCACCA	ATCAAATATC	GTTTGATTAA	10680
GAAAGAAAAA	CACACAGGAG	CTCGTCTGGG	AGAAATCATC	ACTCCCCACG	GTACCTTTCC	10740
GACACCTATG	TTTATGCCAG	TTGGGACACA	AGCCACTGTC	AAAACCTCAGT	CACCTGAAGA	10800
ATTGAAGGAG	ATGGGTTCGG	GAATTATCCT	ATCAAACACC	TATCATCTCT	GGCTTCGCCC	10860
TGGAGATGAA	CTCATTGAC	GCGCTGGTGG	TCTCCACAAG	TTCATGAATT	GGGACCAGCC	10920
TATCTTGACA	GATAGTGGTG	GTTTTCAGGT	TTATTCTTTA	GCAGATAGCC	GTAATATCAC	10980
AGAAGAAGGA	GTAACCTTTA	AAAATCATCT	AAATGGTTCT	AAGATGTTCC	TATCCCCAGA	11040
AAAAGCCATC	TCTATTCAGA	ATAATCTGGG	TTCAGACATC	ATGATGTCCT	TTGATGAATG	11100
TCCTCAGTTT	TATCAACCTT	ATGACTACGT	TAAGAAATCG	ATCGAGCGTA	CCAGCCGTTG	11160
GGCTGAGCGT	GGTTTGAAGG	CTCACCGTCG	TCCACATGAC	CAAGGTTTGT	TTGGAATTGT	11220
GCAAGGTGCA	GGATTTGAAG	ACCTTCGCCG	CCAATCAGCT	CATGATCTTG	TCAGCATGGA	11280
TTTCTCAGGC	TACTCTATCG	GTGGTTTGGC	AGTGGGAGAA	ACCCATGAAG	AGATGAATGC	11340
GGTCTTGAC	TTTACAACCTC	AACTGCTGCC	TGAAAATAAA	CCTCGTTATC	TGATGGGTGT	11400
GGGAGCGCCA	GATAGCTTGA	TCGATGGGGT	CATTCGTGGG	GTGGATATGT	TTGACTGTGT	11460
CTTACCGACT	CGAATGCTC	GTAACGGGAC	TTGTATGACC	AGTCAAGGAC	GTTTGTTGT	11520
GAAAAATGCC	CAGTTTGCTG	AGGACTTTAC	GCCACTGGAT	CCTGAGTGTG	ATTGCTACAC	11580
ATGTAATAAC	TATACACGCG	CTTACCTTCG	TCACCTGCTC	AAGGCTGATG	AAACCTTTGG	11640
TATCCGCTTG	ACTAGCTACC	ACAATCTTTA	CTTCTTGCTT	AACCTGATGA	AGCAAGTGCG	11700
ACAAGCCATC	ATGGATGACA	ATCTCTTGGA	ATTCCGTGAG	TATTTTGTGG	AAAAATATGG	11760
CTATAATAAG	TCAGGACGTA	ATTTCTAAAA	TGGAATTGAT	ATAAAAAAAT	CCTAAGTTTT	11820
CTCTTAGGAT	TTTCTTCTT	TTTTTGATAG	AATAAAGTGT	ACAATGAAAG	GAAGAATAAA	11880
CTCGTATGCG	CATTAAATGG	TTTCCTCGA	TTAGG			11915

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9069 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

GAGAGGGCAA	CAGTCTATC	GCTTCAAATT	TTTTCTTGGT	TTGCAGATAT	TCAAGAATCG	60
GGAGTTTTC	TATAGTATC	GGCAGATTTA	TTACAGCCAA	GCATCTCAA	AATACGGACA	120

741

GCATCCTCCA TCTTTTCTG GCCTTCCTTG ACTCTACCTT GCTTGCTATC AAGGAGACCT	180
TCTGCCCACA GATAACAAT TCGGAAATAG GTCTCATTTT CTTGTAGAA ATGCTCTTCG	240
ATAACACGTT TAAAAATAA GGCATTGGTA AATTCTTCAC ACTCAATACT AGCTAAAAAG	300
CCATTCAATA GTATAGTATG AAAAAGGTTT CGATTGCCAG ACATTTCCAT TAGAAAAATCA	360
GATTTACGTA CCATTTCTCG TACATATCTA GTAAAAAGAG AAACAGATAA AAATGGAGAA	420
CTGACTGAAA ATAAATTGAG TTCATAGATT CCCCAGATCT CGGTAGAAAA CAAATAATCA	480
TGAAGGACTT TTCCTTCCTC TGCTGTTAAG TCTACCCTTT CATCTATGCT CTTCATATAA	540
GACTTGATAA TAATGGCATT TAGAATATGT TTCTGTTTGT TGTGAGAATG GGCATGCTTT	600
TATACTCCCT GCGATATAAG TCCTCAAGAG GTGCTATATT CTTTGGTTCC AAGACATCTG	660
TAATTTCTTT TCTCAACTCA GAATCTGTAT CATACTGGAA ACCTCTTGCC AGAAAGAGGA	720
TCTCCTCCAC ACTGGCAGAT ATATTTTCCA GAGCAAATAG AAACCTTTCC ACCGAAAGCT	780
CACTCTGACC TGTTTCAAAA CGGGACAACA TAGACGGCGA AAATTGTCCT CCGGTTGCTT	840
GTCTCAGTGA GATATTCTT GACTCTCGTA ATTGTCTAAA GACTTTTCCA ATCTGCTCCA	900
TAGACTTCCC CTTGATTCG TATTTTCTTC ATTTTATCAT ATTTTTCAGA AAATTCATCA	960
AAAACCTGCC AAATTGTCAG AATTATGAGA AAATAGAGGA TATTTATCAC GTGGAGGGAC	1020
TGCTATGAGA GACGATATCA AAATCAATGA CCGTGCTTTG GCCTTGCAAG ACCAAATTAT	1080
CGAAAACTA GAGAAAGTTT TTGATACAGA TGTGGAATTG GATGTTTACA ATCTAGGTCT	1140
GATTTATGAA ATCAATCTGG ATGAAACGGG GCTCTGCAAG ATTGTCATGA CCTTCACCGA	1200
TACTGCCTGT GATTGCGCCG AAAGCCTGCC TATTGAAATC GTGGCAGGTC TGAAACAAAT	1260
CGAGGGTATC AAAGATATCA AGGTTGAAGT TACCTGGTCG CTTGCTTGGA AAATCACACG	1320
AATCAGTCGC TATGGCCGTA TTGCCCTTGG ACTACCACCT CGTTAAGCAG ACCAATCACT	1380
TTTAAAGATG AAAATCAAAG GGCAAAC TAG AAAACTAGCC GCAGGTTGCT CAAAACACTG	1440
TTTTGAAGTT ATGGATAGAA CTGACGAAGT CAGCTCAAAA CACTGTTTTG AGGTTGTGGA	1500
TAGAACTGAC GAAGTCAGCT CAAAACACTG TTTTGAGGTT GTGGATAGAA CTGACGAAGT	1560
CAGCCCCAAA CACTGTTTTG AGGTTGTGGA TAGAACTGAC GAAGTCAGTA ACCATACCTA	1620
CGGCAAGGCG ACGTTGACGT GATTGAAGA GATTTTCGAG TATGAGTTTA TTTTTCACCT	1680
GACTTGTTCA TATTCAGAA GTCTGTCACG GCTCCGCTG AAGCAGATGA TACGATGTGG	1740
GCATATTTAC CGAGGACACC ACGGCTGTAA AGTGGTGGCA AGGTTGTTTC TGCCTTGCGT	1800
TTTTCAAGTT CTTCTTCGGA TACGGCCATA GAAATTTCTT TGGTATCTTG GTCAACCGTA	1860

742					
ACGATATCGC	CGGTACGGAG	ATAGGCAATT	GGTCCACCAT	CCTGAGCTTC	AGGAGCGATA 1920
TGTCCAACAA	CCAGACCATA	AGTACCACCA	GAGAAACGTC	CGTCCGTCAA	GAGGGCCACC 1980
TTATCTCCCT	GACCTTTACC	AACAATCATT	GAAGAAAGTG	ATAGCATCTC	AGGCATACCA 2040
GGACCACCTT	TAGGTCCAAC	AAAACGAACA	ACGACTACAT	CGCCATCAAC	GATTTTCATCT 2100
GTCAGAACGG	CCTGAATCGC	ATCTTCTTCT	GAGTCAAAGA	CCTTAGCTGG	CCCAACGTGA 2160
CGACGCACTT	TAAACCTGA	TACCTTGGCA	ACTGCACCGT	CAGGAGCAAG	GTCCCCGTTC 2220
AAGATGATAA	GCGGACCATC	CGCACGTTTT	GGATTTTCAA	GTGGCATGAT	AACTTTTTTG 2280
CCTGGAGTCA	AGTCTGCAAA	GTCAGCCAAG	TTTTTCAGCTA	CAGTCTTACC	AGTACATGTG 2340
ATGCGATCTC	CGTGAAGGAA	ACCATTTGCC	AACAAATACT	TCATAACCGC	AGGGACACCA 2400
CCGACTTCGT	AGAGGTCTTG	GAAGACATAC	TGACCAGATG	GTTTCAAGTC	GGCCAAGTGA 2460
GGCACACGTT	CTTGAATCGT	ATTGAAGTCC	TCAAGTGACA	AGTCAACATT	TGCGGCATGG 2520
GCAATGGCGA	GCAAGTGAAG	AGTGGCGTTT	GTAGAACCAC	CGAGAGCCAT	CGTTACAGTG 2580
ATAGCATCTT	CAAAGGCTTC	ACGAGTCAAG	ATATCTGATG	GTTTGAGACC	AAGTTCCAAC 2640
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GGGTGAGAGG	ATGACCCTGG	CAAACATCATC	CCTAGAACTT	CGATAGCAGT	TGCCATGGTA 2760
TTAGCAGTAT	ACATACCACC	ACAACCACCA	GGGCCAGGGC	AGGCATTACA	TTCAAGACGT 2820
TTCACGTCTT	CAGCTGTCAT	GTCACCGTGG	TTCCATTTTC	CGATACCTTC	AAAGACAGAA 2880
ACCAAGTCGA	TATCTTTACC	ATCAAGATTT	CCCGGTGCAA	TAGTTCCACC	ATAGGCGAAA 2940
ATAGCTGGGA	TATCCATATT	AGCAATAGCA	ATCATAGATC	CAGGCATGTT	CTTGTCACAG 3000
CCACCGATAG	CGACGAAGGC	ATCCACGTTG	TGACCACTCA	TAGCCGCCTC	GATGGAGTCC 3060
GCGATGATGT	CACGAGATGT	TAGAGAGAAA	CGCATACCAG	GCGTTCCCAT	AGCGATCCCG 3120
TCCGCTACGG	TAATGGTTCC	AAACTGTACA	GGCCAAGCGC	CTGCAGATTT	GACACCTTCT 3180
TTAGCCAGTT	TCCCGAAATC	ATGCAAGTGA	ATGTTACATG	GTGTATTTTC	CGCCCAAGTC 3240
GAAATCACTC	CCACAATCGA	TGTTTCAAAG	TCCTTATCTG	TCATACCAGT	CGCACGAAGC 3300
ATAGCACGGT	TAGGTGATTT	AACCATGCTG	TCATAAATGC	TACTGCGGTG	ACGTTTATCT 3360
AATTCAGTCA	TCTTATCCCT	CCCATTTTCT	TTTTTACTAT	TATAGCACAA	TTTTTCGCATG 3420
AAGAACAGAA	TAAATTTCTT	GAATTTTCTG	AAAATTCTAT	ACACATGTGA	AATATTTAAA 3480
ATTAAAAACA	ACAAAGCGGA	TTAGTGCACT	TTCTGATGAC	CAGAATATGC	TTTTTAATCC 3540
GCTTTCTTTA	AATAACGTAC	TGTAATTTTT	ACAGAAATTC	TTTCAAATAA	GTGTATTTAA 3600
CATCTATCTT	GCATTATAAA	TTTCTAGAAC	CTTCTCTTTT	ATATTCGATT	CACTCAAACC 3660

743

ATACTCATTA	AGAAGATAAT	CCATTTTCCC	TACTTGACCG	AATCTTTCCT	GAACACCCAT	3720
CCGATGAATT	TTTGTTATTC	CATCATCAGA	GAATAATTCA	CATAAAGCAC	TGCCAATTCC	3780
ACCTATCTGA	TTGTGGTTTT	CTACAGTAAA	TATAGTTTTT	CCACTTAACA	TTGTTTTTAT	3840
CTGTTCTGGT	ATCGGTTTGA	TTCTAAATAA	ATCTATCACA	CCTACTGAAT	AACCTAATTT	3900
AGACAGTTCA	TCTGCAACTC	GAATACTTGG	AGCAACCATT	ATGCCAGAAG	CAACGATTAC	3960
AAGATCTTCA	CCATGCCTTA	ACTCAATGTA	GCCTTTAGAA	AAATCTTCTC	CACCTTGATA	4020
CACAGGAACT	GGAGCTTTTC	TAATTGTTTCG	AATATATTTT	AGTCCTTTTA	AGTCTAATGT	4080
CTGGTTCAAT	ATTTCACGAA	ATTGGATATC	ATCAGTTGCT	TCGAAAATGA	TTGATTTAGG	4140
AATTAAACGT	AACAATCCAA	TTTCTTCAAA	TGGCATATGT	GTTCCACCAT	TCATCTCTGC	4200
CGTTACTCCT	GCATCTGATC	CAATCACAGT	GGCATCCAAT	TGTGCGTATC	CAAGAGAAAT	4260
AAATAATTGA	TCAAATACTC	TTCGTGAAGC	AAAAGGACCA	AATGTATGAA	GATAAGGTCT	4320
AAACCCCTGA	ATAGACAAGC	CTGCTGCAAG	GCCGACCATT	TCTGCTTCCA	TAATCCCAAC	4380
ATTACATAAA	CGGTCTCCAA	AGTCCTTTTC	AAGATTATTA	GTAGCCATCG	AACTTGACAA	4440
ATCGGCTTCT	AAGACTACTA	TATCAGAATC	ACTTTGATTA	GCCTCTAAAA	GGAAGTCTCT	4500
ATATACATGC	CGTAATTCTT	TCGTACTTCT	CATCATTTCTG	TTTCCTCCAA	TTCTTGACTT	4560
AATCTTTCTA	CAACTGAAGT	TAACATTTGT	TTCTCCTCTA	CAGTAGGGCG	AAGATGATGA	4620
TTGGATTTCA	TTTCTTCCAG	CTCTTGAACC	CCTTGACCTT	TAATAGTATC	TAATACAATG	4680
CACCTAGGTG	ATGAATTATT	TGACTGTTTT	AATTGGACAA	TCCCTTCATA	AATTTCTCTA	4740
ATATCTGAAC	CCTTGACCCT	AATGGATTCA	AATCCAAATG	CTGAAAATTT	TTCTACGAAA	4800
TCACCTGGAT	TACAAATATC	CTTGTAATAA	CCATCTAATT	GTTTTTTGTT	ATCATCAACA	4860
AATACAATTA	AGTTGGATAA	CTGTTGATGA	GAAGCAAACCT	GTATAGCCTC	CCAACATTGT	4920
CCCTCATTTA	ACTCACCATC	TCCAACAATA	GCGTAAGTAT	AAAAGGGACT	CTTCTTTATT	4980
CTCTGACCAT	ATGCAAGTCC	AGTTGCAACA	CTAATTCCTT	GTCTTAAAGA	GCCCGTTGTC	5040
ATATCTATGC	CTGGCGTTAG	ATTTCTATCA	GGATGAGACG	GTAATTTGGT	TCCATTTGTA	5100
TTTAAAGAAT	ATAAGAATTC	TTTGTCAAAG	AAACCATTCA	AATAGAGTGT	ACTGTATAGA	5160
GCTGGTCCTC	CGTGACCTTT	TGATAATATG	AAATAATCTC	TATCTCGTGC	TGCAAATATT	5220
TCTGGAGTCA	TTGGCATTAT	TTCAACATAA	AGCACCGCTA	AACTTCTTAC	GATAGACAGA	5280
CTTCCTCCGT	AATGTCCGAA	TCCAAGATGA	TTCAATGTTC	TAAGAGTATT	TAATCGGATG	5340
TTAGTCGCAA	ATTTTCTTAA	CCCATCTTCT	CTATTTTCTAC	TTAAAATCAT	CCCTTATTCC	5400

744

TCCGTTGCAG ATGGCTTTTT AATAAAGGAT ACTCCAAACA TAACTGCTAG AATAAGAACA	5460
AGACCAATCA CAATGCCTGC TTGTGAGCCA AATTGATTTA ACATTCCTAA AATAATTCCT	5520
GATAGACCAA AATCTGCATC TGAGAAAGTT GATCCTTGGA AACCAAGTCC TCCCAAACT	5580
GGCATTAATA AGACTGGAAG AAAACTGATT AAAATACCTT GTAAAAATGC TCCAATAGTG	5640
GCTCCACGAA CACCACCAGA TGCATTCCCA ATGACACCTG CAGTCGCTCC ACAGAAGAAA	5700
TGAGGCACAA CACCTGGTAA GATAACAACC GTTCCTGAAG CAATCATAAT TACCATACTT	5760
ACTAAACCAC CAACAAAAC AGAGATAAAT CCAATTAGAA CTGCATTGGG TGCATAAGTA	5820
TAAACAATCG GACAATCCAA AGCAGGTTTT GAATTAGGTA CAAGACGCTC TGAAATACCT	5880
TTAAAGGCTG GAACAATTTC GCCCAAAATA AGGCGAACAC CTGCTAAAAT AACAAATACC	5940
CCTGCTGCAA ATTGACCTGC TAATTGTAAA GCATAAATA GACCACTTGT ACCACTACTG	6000
ATTTCTTTTT CTATATATTC TGACCCTGCA AAGATAGCTA CAATAATGTA AATAACTGCC	6060
ATGGATAAAG TAATACTAAC AGTACTATCA CGTAAAAAAG CTAAACTCTT TGGAAATTTA	6120
ATGTCCTCTG TTGATTTTGA TTTGTCACCG ATAAGGCTAC CAGTAAACC ACTCAACCAA	6180
TATCCCAAAG AACTGAAATG ACCTAAAGCT ACCTTGTCAT TTCCAGTTAA TTGAACCATA	6240
TATTTTTGCA CAAATGCTGG GGAAATACTC ATAATAATAC CGAGTGCTAA TCCTCCTAGT	6300
AAGATGAGAG GCAAGCTAGT AAAGCCAGCA ACTGATAAAA TGACCGCAAT CATACATGCC	6360
ATATATAGAG TGTGGTGCCC TGTTAAAAA ATATATTTAA ATCGAGTAAA ACGAGCGATT	6420
AAGATATTGA ACACCATGCC TGCAAACATA ATCATTGCAG TAGCTGAGCC ATATGTTGTT	6480
AAAGCTACAG CTACAATTGC TTCATTATTC GGCACAACGC CAGATAAATG AAAAGCATGC	6540
TCAAACATGG TACCAATGG ATTTAAAGAA TTTTGTACAA TTCCTGCACC ACCAGATACA	6600
ACTAAGAAAC CAACAAAGGT CTTAATTCCA CCTTTAATAA TATCAGGTAA TTTCTTCTTC	6660
TGAAGAACTA ATCCTAAGAT TGCAATTAAA GCTACTAAA TAGCTGGTGT ACTAACAATA	6720
TCCAATATGA ACTTCATCAT GACGCTAGCC TCCTATATAA GTCCTTTTTC TTCACAAAGT	6780
TTAGTAATTA ATTCTCGTAG TTCATCCATA TCAATAATAC TATTTAAGAT ACGAACATCT	6840
CCAAGATGAC TAGCTGAATC AGCTAGATCA CGACCAACAA TCCAATATC AGCTGCATTT	6900
GGATCTGCTC CACCTAAATC ATAATGTTCA ACTTCTACAT CCGAAACATT CAAATCACTC	6960
AATACAGATT CAATATTCAT CTGTACCATA AAACCTGAAC CTAATCCTGA ACCACAAGCT	7020
GTACCAATTT TTAACATTAT CTAATCCTCC TGTTTAATTA TCATTTTAAT GTCATCATAG	7080
TTTTTTGATG ATATTAAAGT TTGAACATGA TTTTATCTC TTAAAATTGT TGTTAAATGT	7140
GACAAAGCCT TTAATGACT CTCATTATCA ATGGCTGCAA TACAAATCAA CAATCTTACC	7200

745

TCTTGTCTG	GATTATCCAA	TAAATAAATC	GGTTCCTCCA	AAACTAACAT	TGACATTCCT	7260
ATTTTCATCA	CACCTTCATC	TGGCCGAGCG	TGAGGAATTG	CTACTCCCTT	CCCTAAATTA	7320
ATAAAAGGTC	CAAACCTCTC	TACTTTTGA	ATCATTGCCT	CAGGGTAGTT	CTCAGTTATC	7380
TTATCTTGAT	CCAAAAGCGG	TTTAGCTGCT	AAACGAATCG	CCTCCTTCCA	TCCTAATTTT	7440
TGCGAACTAA	CCTGATAGGT	TTCTTTGGTA	ATAAGTTGTT	CTAGCACTGG	TACAATTTCC	7500
TTTCTATCAT	TTTTTTGGTA	AAGATAATTC	TTTAACGCCA	ATCTTAATTC	CAATTCTTGT	7560
GTAATAATTC	CATATCTTTT	GACAATATTC	AGGATTTGTT	CAATCTCAA	ATCTCCATAC	7620
TCTAAATTCG	GAAAATCTTT	TAACACTAGT	TCTACTAGTT	GTATTGCTTG	CTCTTCAGTC	7680
ATCATAACCG	AAACTAGATA	ATTTGGCTTT	TCTGTCTCCA	CCTTTATGGT	AGAAAAAACC	7740
ATATCATAGT	CACTACTAGC	TTTCACCTGT	AAATCATCAA	TCTTTGAGGT	TCCTATAAAC	7800
TCAATTTGAG	GAAATAATGC	TAATAGATTC	TCTTTTAACA	TCAATGAAGA	ACTAACACCA	7860
TTAGGACAAA	TGATTGCTGC	TTTATACCAT	TTTGTAGGCA	AAGTATCTGC	TTTCTTTAAA	7920
TAACCTCCGA	AATGGATAAC	AAAATATGCT	GTTTCACTAT	CAGGTATGGG	ATTGTCAATA	7980
GCGTCCATCA	AGGGCATCAA	AGAATCTTTG	ACTAATTCAA	ATAAATCAGG	ATAATGTTCT	8040
TTAACATGCA	ATACATATTC	ATTTGAACTA	GGTAGGCCGA	ACTTTAATCT	ATAGTAAGCC	8100
GGTATAAGGT	GGCGGCGAAG	ATTTTCTCTC	AATCCTTCCC	TTTGTTTAAA	ATGTAACAAA	8160
GAAATATCTT	CCATTCTACT	TATAATAGCC	TCTGTTAATT	GATTAAAGTA	AACCGGAGCA	8220
ACATCTACTT	CACCTTCAA	GCAACTTGAT	AATAAAACGG	TGATATAGCG	ATAATCATCC	8280
TCAGAAAACA	CCGTATCTAT	AATTCCCAA	TCAACCACTG	TATCCAATAA	AATAGTGGTT	8340
ATATCTTGAA	TAACAGGAGA	TACTAATGTC	TCTGAAAGAC	ATACTCTTTC	AACATCCCTT	8400
TGATACCTAC	ACAGAATGAA	TACTAAACCG	AAAAGGTAAA	CTTTTAATTG	ATTAACAATA	8460
GGTACTAGCT	GTAGCTTCTC	ATAATAATCT	TTAACTACCT	GATCAATCAA	ATCATAAGTT	8520
AATGAATACC	CCCAACTGGA	TAAAACATAA	TCCAAACCCC	AAATCCCTAT	GGAGGATTCC	8580
AGCAACTCAC	TAACCATTTG	AAAAGCTAAG	CGGTGCTTAT	TCCACTCTGA	ACCGTGTA	8640
GTATAACCTT	TTGCTCTACT	GTACCCTAGC	TCCAAATCAT	TATCTAACAT	AATCTTTCTT	8700
AATGATTGAA	TATCAGATAA	GGTTGTATTC	TTACTTACTT	TCAAAAAGTC	TTGGTAATGA	8760
CTATTCGATA	TAAAATCTAA	TCGGCAAAAA	GTGTAAAGAT	AGATTAAAGC	TAAGCGAGTC	8820
GACTTTGGTA	AAACCAATTC	ATCCGACTTA	ATAATATCTG	TCAAAGACTG	CTTCGTACGA	8880
TTTGATAAAC	TATAGCGACC	TTGCTTTTTA	TCCAGCACTA	TCCCTTTATT	AGCTAGATAA	8940

746

GGCACTAAAT AATCTATTCC TTCTTTGACT TCCTTTATAG GTAAGCTCAC CTTAACAGAT	9000
AATTCATATA ACGATAGCTC ACAATGATCC ATCAAAGTCA TCAAAATAAC TAGTGCTCTA	9060
TAATCAAAC	9069

## (2) INFORMATION FOR SEQ ID NO: 98:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8654 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

CGAGACAACA AGATGAAGAA AAATTTGCCC TATCGTTTGT GGCGCTTGCA AGTGTAGCAC	60
TTCTTGCAGC CTGTGGAGAA GTGAAGTCTG GAGCAGTCAA CACTGCTGGT AACTCAGTAG	120
AGGAAAAGAC AATTAAAATC GGGTTTAACT TTGAAGAATC AGGTTCCTTA GCTGCATACG	180
GAACAGCTGA ACAAAAAGGT GCCCAATTGG CTGTTGATGA AATCAATGCC GCAGTGGTAT	240
CGATGGAAAA CAAATCGAAG TAGTCGATAA AGATAATAAG TCTGAAACAG CTGAGGCTGC	300
TTCAAGTTACA ACTAACCTTG TAACCCAATC TAAAGTATCA GCAGTCGTAG GACCTGCGAC	360
ATCTGGTGCG ACTGCAGCTG CGGTAGCGAA CGCTACAAAA GCAGGTGTTT CATTGATCTC	420
ACCAAGTGCG ACTCAAGATG GATTGACTAA AGGTCAAGAT TACCTCTTTA TTGGAACCTT	480
CCAAGATAGC TTCCAAGGAA AAATTATCTC AAATATGTT TCTGAAAAAT TAAATGCTAA	540
GAAAGTTGTT CTTTACACTG ACAATGCCAG TGACTATGCT AAAGGGATTG CAAAATCTTT	600
CCGCGAGTCA TACAAGGGTG AAATCGTTGC AGATGAAACT TTCGTAGCAG GTGACACAGA	660
CTTCCAAGCA GCCCTTACAA AAATGAAAGG GAAAGACTTT GATGCTATCG TTGTTCTCGG	720
TTACTATAAT GAGGCTGGTA AAATTGTAAA CCAAGCGCGT GGCATGGGAA TTGACAAACC	780
AATCGTTGGT GGTGATGGAT TCAACGGTGA GGAGTTTGTA CAACAAGCAA CTGCTGAAAA	840
AGCATCAAAC ATCTACTTTA TCTCAGGCTT CTCAACTACT GTAGAAGTTT CAGCTAAAGC	900
TAAAGCCTTC CTTGACGCTT ACCGTGCTAA GTACAATGAA GAGCCTTCAA CATTTGCAGC	960
CTTGGCTTAT GATTCAGTTC ACCTGTAGC AAACGCAGCA AAAGGTGCTA AAAATTCAGG	1020
TGAAATCAAG AATAACCTTG CTAAAACAAA AGATTTTGAA GGTGTAACGT GTCAAACAAG	1080
CTTCGATGCA GACCACAACA CAGTCAAAAC TGCTTACATG ATGACCATGA ACAATGGTAA	1140
AGTTGAAGCA GCAGAAGTTG TAAAACCATA ATAGAAAAAT GTTGAAATAG GGAATGAGCC	1200
TTTGACTCAC TCCCTGTTTC GATATTTAAT ACTCTTCGAA AATCTCTTCA AACTGCGTCA	1260

747

ACGTCGCCTT	GGATTATATA	TGTGACTGAC	TTCGTCAGTC	TTATCTACAA	CCTCAAAGCA	1320
GTGCTTTGAG	CAACCTGCGG	CTAGTTTCCT	AGTTTGCTCT	TTGATTTTCA	TTGAGTATAA	1380
GAACCTATCA	AAAAGTGAGG	GAAAACCCCTC	GGAATTATAA	ATAGAAAGAG	TGAATCTTAT	1440
GCTCCAACAA	CTCGTAAATG	GTTTGATTCT	AGGTAGTGTT	TACGCGCTGT	TAGCCCTAGG	1500
ATATACCATG	GTTTACGGAA	TTATCAAGCT	CATCAACTTC	GCCCATGGTG	ATATTTATAT	1560
GATGGGAGCC	TTTATCGGTT	ATTTCTTGAT	CAATTCTTTC	CAAATGAATT	TCTTTGTAGC	1620
GCTTATTGTA	GCTATGCTAG	CGACAGCTAT	TCTTGGTGTC	GTGATTGAGT	TTCTTGCTTA	1680
CCGACCTTTG	CGCCACTCTA	CTCGTATTGC	TGTTTGTGATT	ACGGCTATTG	GGGTTTCTTT	1740
CCTATTGGAG	TATGGAATGG	TCTATCTGGT	TGGTGCCAAT	ACCCGTGCCT	TCCCTCAAGC	1800
GATTCAAACA	GTTTCGATATG	ATTTGGGACC	AATTAGCTTA	ACAAATGTGC	AGTTAATGAT	1860
TTTGGCCATT	TCCTTGATTT	TGATGATTTT	GTTACAAGTC	ATTGTCCAAA	AGACTAAGAT	1920
GGGGAAAGCC	ATGCGTGCGAG	TATCAGTAGA	TAGCGACGCG	GCGCAATTGA	TGGGGATCAA	1980
TGTAAACCGT	ACGATTAGCT	TTACCTTCGC	TTTGGGTTC	GCTCTTGCGG	GTGCGGCTGG	2040
TGTTCTGATT	GCTCTTTATT	ATAACTCTCT	TGAGCCTTTG	ATGGGGGTTA	CTCCAGGTCT	2100
TAAATCTTTC	GTTGCCGCAG	TACTTGGTGG	TATCGGAATT	ATTCCTGGTG	CGGCTCTTGG	2160
TGGCTTTGTG	ATTGGTCTAT	TGGAAACCTT	TGCGACTGCC	TTTGGGATGT	CAGATTGCCG	2220
TGATGCCATT	GTTTATGGAA	TCTTGTTGTT	GATCTTGATT	GTCCGCCCAG	CTGGTATCCT	2280
TGGTAAGAAT	GTGAAAGAGA	AGGTGTAAAC	GATGAAGGAA	AATTTAAAAG	TTAATATTCT	2340
ATGGTTACTC	CTTTTGTTAG	CTGGCTATAG	CTTGATTAGT	GTACTGGTTT	CAGTCGGAGT	2400
ACTTAATCTA	TTCTATGTAC	AGATTTTACA	ACAAATTGGA	ATTAATATTA	TTTGGCTGT	2460
TGGTCTCAAC	TTAATCGTTG	GTTTTTCAGG	ACAATTTTCA	CTTGGTCATG	CTGGTTTCAT	2520
GGCGATTGGT	GCCTATGCAG	CAGCTATTAT	TGGTTCTAAA	TCACCAACCT	ACGGTGCCTT	2580
CTTTGGAGCT	ATGCTTGTA	GGGCTTTGCT	TTCAGGAGCA	GTTGCCTTAC	TTGTCGGCAT	2640
TCCAACCTTG	CGCTTGAAGG	GGGACTATCT	TGCGGTAGCA	ACTCTGGGTG	TTTCTGAAAT	2700
TATCCGTATC	TTTATCATCA	ATGGTGGAAG	CCTTACAAAT	GGTGCGGCAG	GTATCTTAGG	2760
GATTCCTAAC	TTTACAACCT	GGCAAATGGT	TTACTTCTTT	GTCGTGATTA	CAACCATTGC	2820
AACCTTGAAC	TTCTTGCGTA	GCCCAATTGG	TCGTTCAACC	CTCTCTGTTT	GTGAAGATGA	2880
AATCGCTGCT	GAGTCAGTTG	GGGTTAATAC	GACTAAAATT	AAAATCATCG	CTTTTGTCTT	2940
TGGTGCCATT	ACTGCAAGTA	TTGCTGGGTC	ACTTCAGGCA	GGATTATATCG	GGTCTGTTGT	3000

748

ACCGAAAGAT	TACACCTTCA	TCAACTCAAT	CAACGTTTGG	ATTATTGTTG	TATTTGGTGG	3060
ACTCGGTTCC	ATTACAGGTG	CGATTGTTTC	GGCTATTGTT	CTGGGAATTT	TGAATATGCT	3120
TCTCCAAGAT	GTTGCTAGTG	TGCGTATGAT	TATTTACGCT	TTGGCCTTGG	TATTTGGTAAT	3180
GATTTTCAGA	CCAGGTGGAC	TCCTTGGAAC	ATGGGAAC TG	AGCCTATCAC	GTTTCTTTAA	3240
AAAATCTAAG	AAGGAGGAAC	AAAATAATG	GCATTACTTG	AAGTAAACA	GTTAACCAAA	3300
CATTTTGGTG	GTCTAACAGC	TGTTGGAGAT	GTGACTCTTG	AATTGAACGA	AGGGGAAC TG	3360
GTTGGATTAA	TCGGTCCAAA	CGGAGCTGGG	AAAACCACCC	TTTTCAACCT	TTTGACCGGT	3420
GTTTATGAAC	CAAGCGAGGG	AACAGTAACC	CTAGATGGTC	ACCTTTTGAA	TGGGAAATCA	3480
CCTTATAAGA	TTGCCTCTTT	GGGACTTGGA	CGTACTTTCC	AAAATATCCG	TCTCTTTAAA	3540
GATTTAACAG	TTTGTAGATA	TGTTTTGATT	GCTTTTGGA	ACCATCACAA	ACAGCATGTT	3600
TTTACTAGTT	TCTTACGCTT	ACCAGCTTTT	TACAAGAGTG	AAAAAGAATT	AAAGGCTAAA	3660
GCTTTGGAAT	TGTTGAAAAT	CTTTGATTTA	GATGGTGATG	CAGAGACTCT	TGCTAAAAAT	3720
CTTTCTACG	GACAACAACG	TCGTTTGGA	ATTGTTCTGT	CCCTTGCTAC	GGAACCTAAA	3780
ATTCTCTTCT	TAGATGAACC	AGCAGCAGGT	ATGAACCCAC	AGGAAACAGC	CGAATTGACT	3840
GAGTTAATTC	GTCGTATCAA	AGATGAGTTT	AAGATTACAA	TCATGTTGAT	TGAACACGAT	3900
ATGAATCTGG	TCATGGAAGT	AACAGAACGT	ATCTACGTAC	TTGAATATGG	CCGTTTAATC	3960
GCTCAAGGAA	CTCCAGACGA	AATTAAGACC	AATAACGCG	TTATCGAAGC	TTATCTAGGA	4020
GGTGAAGCCT	AATGTCTATG	TTAAAAGTTG	AAAATCTTTC	TGTGCATTAC	GGTATGATCC	4080
AAGCAGTTCG	TGATGTAAGC	TTTGAAGTTA	ATGAAGGAGA	AGTTGTTTCC	CTTATCGGTG	4140
CCAACGGTGC	AGGTAAGACA	ACTATTCTTC	GCACCTTGTC	AGGTTTGGTT	CGACCAAGTT	4200
CAGGAAAGAT	TGAATTTTTA	GGTCAAGAAA	TCCAAAAAAT	GCCAGCTCAG	AAAATCGTGG	4260
CAAGTGGTCT	TTCACAAGTT	CCAGAAGGAC	GCCACGTCCT	TCCTGGCTTG	ACTGTATATG	4320
AAAATCTTGA	AATGGGAGCT	TTCTTAAAGA	AAAATCGTGA	AGAAAATCAA	GCTAACTTGA	4380
AGAAGGTTTT	CTCACGCTTT	CCTCGTCTTG	AAGAACGGAA	GAACCAAGAT	GCAGCCACTC	4440
TTTCAGGGGG	GGAACAACAA	ATGCTTGCCA	TGGGACGCGC	CCTCATGTCA	ACACCAAAAC	4500
TTCTTCTTTT	AGATGAACCA	TCAATGGGAC	TTGCCCAAT	CTTTATCCAA	GAAATTTTTG	4560
ATATCATTC	AGATATTCAG	AAGCAAGGAA	CAACGGTCCT	CTTGATTGAA	CAAAATGCCA	4620
ATAAAGCACT	TGCAATCTCT	GACCGAGGAT	ATGTACTGGA	AACAGGGAGA	ATCGTCCTAT	4680
CAGGAACAGG	AAAAGAACTC	GCTTCATCAG	AAGAAGTCAG	AAAAGCATAT	CTAGGTGGCT	4740
AAAACAATCC	AGTGGATTGT	TTTAGTCGGC	AGATGGAGAT	TACGAAGTAA	TCATCAATAT	4800